

IN THE CIRCUIT COURT OF JEFFERSON COUNTY
STATE OF MISSOURI

THE COUNTY OF JEFFERSON,
MISSOURI

Plaintiff,

v.

TYLER TECHNOLOGIES, INC

Defendants.

Case No.: 09JE-CC00375

Division: 1

NOTICE

TO: TYLER TECHNOLOGIES, INC %ANDREW RUSSELL BY E-MAIL TO :
andrew.russell@klgates.com

The enclosed summons and petition are served pursuant to Missouri Supreme Court Rule 54.16.


You may sign and date the acknowledgement part of this form and return one copy of the completed form to the sender within thirty days of March 31, 2009.

If you are served on behalf of a corporation, unincorporated association, including a partnership, or other entity, you must indicate under your signature your relationship to that entity. If you are served on behalf of another person and you are authorized to receive process, you must indicate under your signature your authority.

If you do not complete and return the form to the sender within thirty days, you or the party on whose behalf you are being served may be required to pay any expenses incurred in serving a summons and petition in any other manner permitted by law.

If you do complete and return this form, you or the party on whose behalf you are being served must answer the petition by May 4, 2009, as agreed with Plaintiff's attorney. If you fail to do so, judgment by default may be taken against you for the relief demanded in the petition.

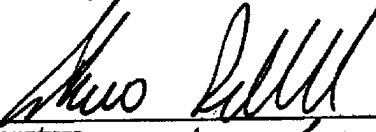
I DECLARE, UNDER PENALTY OF PERJURY, THAT THIS NOTICE WAS
E-MAILED ON March 31, 2009.


Dana Hockensmith

[Acknowledgment follows on next page.]

ACKNOWLEDGEMENT OF RECEIPT OF SUMMONS AND PETITION

I declare, under penalty of filing a false affidavit, that I received a copy of the Summons and of the Petition in the above captioned matter. I agree that a response to the Petition will be filed by May 4, 2009, as agreed with Plaintiff's attorney.



Signature
Counsel for Tyler R. Teda.

Relationship to Entity/Authority
Receive Service of Process
4/3/09

Date Signed



IN THE 23RD JUDICIAL CIRCUIT COURT, JEFFERSON COUNTY, MISSOURI

Judge or Division: ROBERT G WILKINS	Case Number: 09JE-CC00375
Plaintiff/Petitioner: BETH MAHN COLLECTOR OF REVENUE FOR COUNTY OF JEFFERSON MO	Plaintiff's/Petitioner's Attorney/Address DANA A HOCKENSMITH 12801 FLUSHING MDWS ST LOUIS, MO 63131-1829
Defendant/Respondent: TYLER TECHNOLOGIES, INC	Court Address: P O BOX 100 HILLSBORO, MO 63050
Nature of Suit: CC Breach of Contract	(Date File Stamp)

Summons in Civil Case

The State of Missouri to: TYLER TECHNOLOGIES, INC 3199 KLEPINGER ROAD DAYTON, OH 45406	SERVE: REGISTERED AGENT CAPITAL CORPORATE SERVICES, INC 222 E. DUNKLIN, SUITE 102 JEFFERSON CITY, MO 65101
--	--

COURT SEAL OF

JEFFERSON COUNTY

You are summoned to appear before this court and to file your pleading to the petition, a copy of which is attached, and to serve a copy of your pleading upon the attorney for Plaintiff/Petitioner at the above address all within 30 days after receiving this summons, exclusive of the day of service. If you fail to file your pleading, judgment by default may be taken against you for the relief demanded in the petition.

03/26/09 HOWARD WAGNER, CIRCUIT CLERK AMANDA SCHUH, DEPUTY CLERK

Sheriff's or Server's Return

Note to serving officer: Summons should be returned to the court within thirty days after the date of issue.

I certify that I have served the above summons by: (check one)

☐ delivering a copy of the summons and a copy of the petition to the Defendant/Respondent.

☐ leaving a copy of the summons and a copy of the petition at the dwelling place or usual abode of the Defendant/Respondent with a person of the Defendant's/Respondent's family over the age of 15 years.

☐ (for service on a corporation) delivering a copy of the summons and a copy of the petition to _____ (name) _____ (title).

☐ other _____ (address)

Served at _____ (County/City of St. Louis), MO, on _____ (date) at _____ (time).

Printed Name of Sheriff or Server Signature of Sheriff or Server

Must be sworn before a notary public if not served by an authorized officer:

(Seal) Subscribed and sworn to before me on _____ (date).

My commission expires: _____ Date Notary Public

Sheriff's Fees	
Summons	\$ _____
Non Est	\$ _____
Sheriff's Deputy Salary	
Supplemental Surcharge	\$ 10.00
Mileage	\$ _____ (_____ miles @ \$ _____ per mile)
Total	\$ _____

A copy of the summons and a copy of the petition must be served on each Defendant/Respondent. For methods of service on all classes of suits, see Supreme Court Rule 54.

FILED

MAR 25 2009

IN THE CIRCUIT COURT OF THE 23RD JUDICIAL CIRCUIT
OF MISSOURI AT HILLSBORO, JEFFERSON COUNTY, MISSOURIHOWARD WAGNER
CIRCUIT CLERK

THE COUNTY OF JEFFERSON, MISSOURI)
 % Ms. Beth Mahn, Collector)
 Jefferson County Administration Center)
 729 Maple Street)
 Hillsboro, MO 63050)

Plaintiff,

v.

TYLER TECHNOLOGIES, INC.)
 Serve: Registered Agent)
 Capital Corporate Services, Inc.)
 222 E. Dunklin, Suite 102)
 Jefferson City, MO 65101.)
 Defendants.)

Cause No. 09JE-CC00375

Division: /

(Jury Trial Demanded)

PETITION FOR BREACH OF CONTRACT

COMES NOW the County of Jefferson, Missouri, and for its cause of action for breach of contract against Defendant, Tyler Technologies, Inc., states as follows:

1. The Plaintiff, the County of Jefferson, Missouri, hereinafter the "County," is a political subdivision of the State of Missouri.
2. Defendant, Tyler Technologies, Inc., hereinafter "Tyler," is a corporation formed under the laws of the State of Delaware and is authorized to do business in the State of Missouri. Tyler's principle offices are located at 3199 Klepinger Road, Dayton, OH 45406.
3. In 2005, the County, and particularly the County Collector and County Assessor, determined that the County's computer system for assessing tax value of real and personal property in Jefferson County, and for billing and collecting real and personal property taxes in Jefferson County, was, after more than 20 years, incapable of performing those functions in the

near future, particularly considering the population growth of Jefferson County. The County, through the Assessor's and Collector's offices, and through the County's information technology personnel, developed a detailed Request for Proposal for a new computerized Property Tax System. Six bids were received. After extensive review of all the proposals by the County personnel, including meetings with the bidders, the County determined that, based on the representations and promises contained in the bids and stated in the meetings, the bid of Tyler was the best bid, and the County accepted Tyler's bid.

4. On January 31, 2006, the parties executed an "Agreement for Software and Professional Services Between Tyler Technologies, Inc./CLT Division and Jefferson County, Missouri," a copy of such agreement is attached hereto and incorporated herein as Exhibit "1." This agreement incorporated as part of the agreement the Software License/Sublicense Agreement, a copy of which is attached hereto and incorporated herein as Exhibit "2". The Software License Agreement was amended by "Amendment 1 To The Agreement for Software Licenses Between Tyler Technologies, Inc./CLT Division and Jefferson County, Missouri," a copy of which is attached hereto and incorporated herein as Exhibit "3". An "Amendment 3 To The Agreement For Software And Professional Services Between Tyler Technologies, Inc./CLT Division and Jefferson County, Missouri" was executed by the parties. A copy of such Amendment 3 is attached hereto and incorporated herein as Exhibit "4". These Agreements and Amendments are collectively referred to herein as the "Agreement."

5. The Agreement generally requires Tyler to provide the licenses and professional services required to customize, tailor, enhance and implement a new computerized Property Tax System for the County. Such tax system includes functions for determination of the value of real and personal property in Jefferson County, and for assessment of both real property and personal

property by the office of the Jefferson County Assessor. The tax system also includes billing and collection functions to be performed by the Jefferson County Collector.

6. The work to be performed by Tyler pursuant to the terms of Agreement was to be completed within Four Hundred Fifty-Five (455) business days from the date of contract, or November 13, 2007.

7. For the work to be performed by Tyler and the software licenses, the County has paid to Tyler the total amount of One Million, One Hundred and Twenty-four Thousand, One Hundred and Thirty-five Dollars (\$1,124,135).

8. Tyler has breached the Agreement because:

a. Tyler failed to complete its work pursuant to the terms of the Agreement within Four Hundred Fifty-Five (455) business days of the date of the Agreement.

b. Tyler has failed to install the software and provide the professional services necessary and required pursuant to the terms of the Agreement to provide Plaintiff with a computerized Property Tax System as set forth in the Agreement and required by the terms of the Agreement.

c. The software and computerized Property Tax System installed by Tyler for the County does not provide the necessary functions and services as required by the terms of the Agreement nor as promised by Tyler in its representations to the County in its proposal to the County and in its oral presentations.

d. The system is unusable to the County, in particular by the offices of the County Collector and Assessor, and to the residents of the County, in implementing a Property Tax Systems and performing the functions of the County Assessor and the County Collector.

e. Tyler has been unable to train the County personal to use the Property Tax System because the System has not been properly installed.

f. Tyler has failed to train the County personnel to operate the Property Tax System.

9. While the County has demanded that Tyler perform all services necessary, and take such actions as are required to make the Property Tax System perform all of the functions required by the Agreement, Tyler has failed to provide such necessary services.

10. Not only has Tyler failed to provide the licenses and professional services required pursuant to the terms of the Agreement, but Tyler has breached its obligations of good faith and fair dealing by seeking to charge the County additional sums for the work to be provided pursuant to the terms of the Agreement and by demanding that the County execute a Maintenance Agreement and pay Tyler for such Maintenance Agreement prior to Tyler completing the installation of the computerized Property Tax System as required by the terms of the Agreement, all as shown by letter dated September 17, 2008 from Mr. Andrew D. Teed, President of the CLT Division of Tyler, a copy attached hereto as Exhibit "5". Such demands by Tyler for additional compensation, and the demand that the County to execute the Maintenance Agreement prior to Tyler's completion of all services required pursuant to the terms of the Agreement, constitute a repudiation by Tyler of the Agreement in violation of its obligations of good faith and fair dealing.

11. The County has performed all terms and conditions of the Agreement to be performed by it.

12. The requirements of Article 15, Dispute Resolution, of the Agreement, have been fulfilled by the County giving written notice to Tyler by letter dated December 31, 2008, of its

claim against Tyler. Thereafter, on January 26, 2009, the parties designated representatives met in an attempt to resolve the dispute between the County and Tyler. No resolution of the dispute was reached between the parties.

13. By reason of Defendant Tyler's breach of the terms of the Agreement, Plaintiffs have been damaged in the amount paid to Tyler of One Million, One Hundred and Twenty-four Thousand, One Hundred and Thirty-five Dollars (\$1,124,135). Further, the County has been damaged in the amount of One Hundred Eighty-three Thousand, Eight Hundred and Sixty-four Dollars and Eight-five cents (\$183,864.85) for additional software and equipment purchased by it in order to implement the computerized Property Tax System which was to be installed by Tyler.

14. Pursuant to Article 13, Consent to Jurisdiction, Venue and Service, jurisdiction for this action is solely in the Courts of the State of Missouri, and venue for this action is solely in the Courts of the County of Jefferson, Missouri.

WHEREFORE, Plaintiff, the County of Jefferson, prays the Court for judgment against Defendant, Tyler Technologies, Inc. in the amount of One Million Three Hundred Seven Thousand Nine Hundred Ninety-Nine and 85/100 Dollars (\$1,307,999.85), and for an award of the court costs incurred herein, and for such other orders as the Court shall deem appropriate.

Dated this 25th day of March, 2009.

HOCKENSMITH TATLOW MCKINNIS HAMILL, P.C.



DANA HOCKENSMITH #24925
12801 Flushing Meadow Drive
Saint Louis, Missouri 63131
(314) 965-2255
FAX: (314) 965-6653
Hockensmith@htmhlaw.com
Attorneys for Plaintiff

Jefferson County, Missouri

Articles of Agreement iasWorld Implementation

tyler
clt division

January 2006

Tyler Technologies

tyler*works*

**PLAINTIFF'S
EXHIBIT**

1

TABLE OF CONTENTS

	<u>PAGE</u>
ARTICLE 1. SCOPE.....	2
ARTICLE 2. TIME FOR PERFORMANCE AND COMPLETION	2
ARTICLE 3. CONTRACTOR'S COMPENSATION AND PAYMENT	2
ARTICLE 4. SPECIFICATIONS AND REQUIREMENTS.....	3
ARTICLE 5. ACCEPTANCE AND FINAL ACCEPTANCE.....	3
ARTICLE 6. SOFTWARE LICENSES	4
ARTICLE 7. ASSURANCES, REPRESENTATIONS AND WARRANTIES OF CONTRACTOR.....	5
ARTICLE 8. TERMINATION.....	6
ARTICLE 9. PATENT AND COPYRIGHT INDEMNIFICATION	7
ARTICLE 10. LIMITATION OF ACTIONS AND LIABILITY	8
ARTICLE 11. NOTICE.....	9
ARTICLE 12. GOVERNING LAW.....	9
ARTICLE 13. CONSENT TO JURISDICTION, VENUE AND SERVICE	9
ARTICLE 14. COVENANTS BY THE COUNTY	10
ARTICLE 15. DISPUTE RESOLUTION	10
ARTICLE 16. INDEMNIFICATION.....	11
ARTICLE 17. INSURANCE.....	11
ARTICLE 18. LEGAL RESTRAINTS AND LIMITATIONS	11
ARTICLE 19. SOLICITATION OF AGREEMENT	11
ARTICLE 20. INDEPENDENT CONTRACTOR.....	12
ARTICLE 21. CONFLICT OF INTEREST	12
ARTICLE 22. SUBCONTRACTORS	12
ARTICLE 23. ASSIGNMENT.....	12
ARTICLE 24. NON-DISCRIMINATION PROCEDURES.....	13
ARTICLE 25. AUTHORITY TO EXECUTE.....	13
ARTICLE 26. SEVERABILITY	13
ARTICLE 27. NO WAIVER.....	13
ARTICLE 29. NON-SOLICITATION.....	14
ARTICLE 30. EXHIBITS	14
Witness/Signature Page	14

Exhibits

1. Scope of Work
2. Project Payment Schedule
3. *iasWorld* Baseline Description
4. Software License/Sublicense Agreement
5. Hardware Configuration
6. Ongoing Maintenance and Support
7. County Responsibilities

AGREEMENT FOR SOFTWARE
AND
PROFESSIONAL SERVICES
BETWEEN
TYLER TECHNOLOGIES, INC. | CLT DIVISION
AND
JEFFERSON COUNTY, MISSOURI

THIS AGREEMENT is made by and between the County of Jefferson, a political subdivision of the State of Missouri, hereinafter referred to as the "County," and Tyler Technologies, Inc. | CLT Division, a company formed under the laws of the State of Delaware, and authorized to do business in the State of Missouri, hereinafter referred to as the "Contractor," with offices located at 3199 Klepinger Road, Dayton, Ohio, 45406.

WHEREAS, the County has determined that it is necessary, expedient and in the best interest of the County to retain Contractor to provide software and professional services to further enhance the County's Property Tax System; and

WHEREAS, the County has investigated hardware and software professional services available in the marketplace; and

WHEREAS, the Contractor's expanded iasWorld is deemed the best fit for upgrading the County's current system; and

WHEREAS, the County has previously entered into an agreement with the Contractor for software licenses to be implemented; and

NOW THEREFORE, it is hereby agreed that the Contractor shall provide the products and professional services contained in this Agreement, for and in consideration of the foregoing promises and the mutual covenants herein contained, it is agreed by and between the parties hereto as follows:

ARTICLE 1. SCOPE

This Agreement sets forth the terms and conditions pursuant to which the County retains the Contractor to provide enhancements to the County's computerized Property Tax System as set forth in this Agreement (hereinafter referred to as the "System"). The Contractor shall provide the license(s) and the professional services required to customize, tailor, enhance and implement the System. The performance of this Agreement shall proceed in accordance with the Phases described in Exhibit 1 (Scope of Work) attached hereto (hereinafter referred to as the "Phases").

ARTICLE 2. TIME FOR PERFORMANCE AND COMPLETION

Before beginning Phase 1, the County shall provide the Contractor a duplicate original of the executed contract which shall serve as the notice to proceed, which Contractor's receipt of said executed contract shall, to the extent necessary to implement this Agreement, provide that the Contractor shall immediately begin work on project in accordance with specific deadlines as agreed to in the Project Plan, which is described and further set forth under Phase 1 of Exhibit 1, with respect to any task to be performed by County or Contractor where completion of the Phase is dependent upon completion of a task by a certain date.

Any reasonable changes agreed to by the Contractor and the County's Project Manager in the description of the Phase and time for performance shall be processed through the County's change order process.

If, at any time, the Contractor is delayed in its performance and/or completion of a Phase, including any delays caused by the County, the Contractor may request, in writing, extension of time beyond the estimated completion time set forth in Exhibit 2 (Project Phase and Payment Schedule) attached hereto and such extension shall be reasonably considered by the County provided, however, the aggregate time for completion under this Agreement shall not exceed 455 business days unless such delays are caused by the County. It is agreed that all services required for the enhancements described in this Agreement, and attachments hereto, and/or any negotiated change orders made during the project, except maintenance and support and any warranty work, shall be completed within 481 business days after execution of this Agreement. If during the project, a delay develops that will prevent the 481 business day completion, the contractor must address in writing an extension of time required and specifying a new final completion date and provide a new maximum number of business day completion. The review, acceptance and approval of this revision will be processed through the County's change order process.

ARTICLE 3. CONTRACTOR'S COMPENSATION AND PAYMENT

As compensation for the goods and services to be provided by the Contractor, the County agrees to pay the Contractor a total of **SEVEN HUNDRED FORTY-THREE THOUSAND SIX HUNDRED FIFTY DOLLARS (\$743,650.00)**. Payment to Contractor shall be in accordance with the fees specified for each Phase as provided in Exhibit 2 and upon completion of work agreed to by the Contractor and the County within a Phase and acceptance by the County and in accordance with the following:

- a. The Contractor shall submit written notification to the County upon completion of an activity item priced within a phase, or a Phase.
- b. The County shall, in accordance with Article 5, advise the Contractor of any work that is not accepted.
- c. The Contractor shall submit an invoice to the County upon receipt of notification by the County for acceptance of Phase.
- d. The County shall pay the undisputed amount within thirty (30) days after receipt of an invoice.
- e. Failure of the County to make payment when due shall entitle the Contractor, in addition to its other rights and remedies, to suspend, temporarily, further performance of this Agreement without liability.
- f. All disputes over acceptance and payments shall be handled in accordance with the provisions of Article 15.

Additional compensation that may be due the Contractor as the result of services requested by the County that are beyond the scope of this Agreement will be invoiced in the month subsequent to the month in which the services were provided.

ARTICLE 4. SPECIFICATIONS AND REQUIREMENTS

The Contractor covenants and agrees that the System, when complete, shall be in compliance with the specifications and representations attached hereto as Exhibit 3 (*iasWorld Baseline Description*) and such additional requirements as developed by County and Contractor in the Requirements and Specification Validation during Phase 2.

ARTICLE 5. ACCEPTANCE AND FINAL ACCEPTANCE

At intervals appropriate to the progress of the tailoring, enhancement, or development of the software provided as part of the System, the Contractor shall provide documents related to the work in progress to the County's Project Manager for approval prior to proceeding on the subject work. The County shall have a period of ten (10) business days to notify the Contractor of documentation related to the work in progress that is not accepted. If written notice of any documentation related to the work in progress that is not accepted is not provided within such ten (10) business day period, all documentation related to the work in progress covered by the specific request for review shall be deemed accepted, however, such review of the activities within a Phase shall not be deemed acceptance of a Phase. Acceptance of a specific request for review shall not relieve the Contractor of any responsibility with respect to any products or services that are defective or fail to comply with the specifications and requirements pursuant to the terms of this Agreement.

Upon the completion of each of the identified Phases 1 - 7, the County shall have a period of ten (10) business days to notify the Contractor of work that is not accepted. If written notice of any work that is not accepted is not provided within such ten (10) business day period, all work covered by the phase shall be deemed accepted. Acceptance of a Phase shall not relieve the Contractor of any responsibility with respect

to any products or services that are defective or fail to comply with the specifications and requirements pursuant to the terms of this Agreement.

At the completion of Phase 8, the County will be provided thirty (30) calendar days to operate and test the System. During the thirty (30) day period, Contractor shall furnish complete off-site telephone support in the form of consultation and/or remote diagnostic software support within four (4) hours of the County's support request. If the error, defect or nonconformity cannot be corrected by off-site telephone support within five (5) business days of when the error was first reported during normal business hours (Monday through Friday, 8:00 a.m. to 5:00 p.m. EST), the Contractor shall provide on-site support service at the beginning of the next business week, or as otherwise agreed upon, including implementation of temporary procedures to sustain the computerized mass appraisal system. The Contractor shall provide corrective measures for all reported errors within five (5) business days of the commencement of on-site service. If the System fails to meet the specifications and requirements provided for in this Agreement during the thirty (30) day period, County may, at County's option, request modification of the software by the Contractor, at no additional contract charge. At the conclusion of the thirty (30) day period, if County has not notified Contractor in writing of any such failure or defect in the System, the County will be deemed to have given final acceptance for the System.

ARTICLE 6. SOFTWARE LICENSES

a. ORACLE® SOFTWARE

The Oracle® license is covered under Jefferson County Article of Agreement for iasWorld License Agreement dated December 14, 2006.

b. COLE LAYER TRUMBLE (iasWorld) SOFTWARE

1. The iasWorld Property Tax Engine modules as identified and described in Exhibit 4 (Software License/Sublicense Agreement), Part B, attached hereto, are covered under Jefferson County Article of Agreement for iasWorld License Agreement dated December 14, 2006.

c. OTHER THIRD-PARTY SOFTWARE

1. The Contractor shall, subject to acquisition of any additional Phase of service (1 to 8) or part of a Phase, pass to the County, subject to full payment of the County's obligations provided herein, a license to use Software identified and described in Exhibit 4 (Software License/Sublicense Agreement), attached hereto. All third-party software shall conform to published specifications and representations of the supplier.
2. Subject to the terms and conditions hereinafter set forth, the Contractor grants to the County a perpetual right-to-use, non-exclusive, nontransferable pass-through license to use the Akanda Innovations Inc Licensed Software, hereinafter referred to as the iasWorld Productivity Tools modules as identified and described in Exhibit 4 (Software License/Sublicense Agreement), Part C, attached hereto, solely in the conduct of the business of the County, related documentation, and any improvements, additions or modifications of the version or versions of the software which the Contractor has licensed to the County, together with the right to make such copies of the software as may be required for the County's own internal business purposes.

ARTICLE 7. ASSURANCES, REPRESENTATIONS AND WARRANTIES OF CONTRACTOR

- a. The Contractor warrants to the County that the System will operate according to the performance standards set forth in Exhibit 3 (*iasWorld* Baseline Descriptions) and such additional requirements as developed by the County and the Contractor in the Requirements and Specification Validation during Phase 2.
- b. The Contractor warrants that the System shall operate in accordance with the requirements of this Agreement from the date of acceptance through the maintenance periods provided in Exhibit 6 (Ongoing Maintenance and Support), and any extension or renewal thereof.
- c. The Contractor warrants and represents to the County that the Contractor has the right to grant to the County the right to use all software without restriction or limitation except as provided herein and in accordance with the provisions set forth in Article 6. The Contractor warrants and represents to the County that the Contractor is an authorized distributor for the sublicensed software, attached hereto as Exhibit 4 (Software License/Sublicense Agreement). The County will have the right to use the sublicensed software.
- d. The Contractor warrants the software will perform as specified herein upon acceptance of Phase 8, and shall perform as represented by the Contractor with respect to updates, enhancements or additional software which may be acquired by the County so long as the County continues with a Maintenance Agreement with the Contractor or the Contractor's successors or assigns.

During the maintenance period, the Contractor will design, code, test, document and deliver any amendments or alterations (the "Amendments") to the Contractor's software that is necessary to correct or avoid any defect in the Contractor's software which is present at the time of delivery, or is discovered during County usage, and affects performance of the Contractor's software in accordance with the functions set forth in Exhibit 3 (*iasWorld* Baseline Description). The Contractor shall only be responsible to correct defects that are documented or submitted in writing during the maintenance agreement period. Oral notification or other unwritten complaints will not constitute notice under this Agreement.

- e. The Contractor agrees that in case of dissolution of Contractor's third party supplier, the Contractor will replace third party supply with equivalent supply, to be approved by County, within 30 days of dissolution.

The warranties specified in Article 7 above do not cover damage, defect, malfunctions or failure caused by: (i) failure by the County to follow the Contractor's and the manufacturer's installation, operation, or maintenance instructions or its failure to fulfill its obligations under this Agreement, (ii) the County's modification or relocation of the System, (iii) the County's abuse, misuse or negligent acts, (iv) power failure or surges, lightning, fire, flood, accident, actions of third parties and other events, including force majeure, outside Contractor's reasonable control, and (v) failure of County to provide an operating environment for the System, including electrical and telecommunications connections as defined during the Phase 2: Requirements Analysis.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES OF ANY TYPE WHETHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

ARTICLE 8. TERMINATION

A. Termination for Cause. During the implementation of the system, which is described in Phases 1- 8 of Exhibit 1 (Scope of Work) or until the County uses the software in production, whichever occurs first, the County shall have the right to terminate the Agreement for cause, upon sixty (60) days written notice to the Contractor. Said written notice will include the reasons for the termination, and, upon receipt, the Contractor shall have sixty (60) days to correct. At the end of the sixty (60) day period, if the Contractor has corrected the cause for termination, the termination request shall be rescinded. If the Contractor has not corrected the cause of the termination as defined in the County's notice of termination within sixty (60) days after the receipt of such notice, this Agreement shall automatically terminate and the Contractor shall pay the County as liquidated damages, a one-time payment of Three Hundred Sixty Five Thousand Seven Hundred Fifty Dollars (\$365,750.00), which shall be the County's sole and exclusive remedy in the event of a termination for cause. The Contractor may offset against this payment all monies owed by the County to the Contractor (other than license fee payments) for all services rendered and materials furnished as of the date of termination.

The Agreement may be terminated for cause by the County for the following reasons:

- Reasonable evidence that the Company is not using commercially reasonable efforts to complete the work within the then agreed upon specified time.
- Failure of the iasWorld product to meet the published specifications as included in Exhibit 3 herein.

B. Termination for Convenience. This Agreement may be terminated by either party by giving thirty (30) days written notice to the other, before the effective date of termination, providing the terminating party has first exercised the Dispute Resolution provision of this Agreement as described in Article 15 herein. In the event of termination or suspension, the Contractor shall be entitled to receive payment in full at the amounts as described in Exhibit 2 herein, or if not specifically set forth in this Agreement, at the Contractor's standard or published rates for all services performed (including expenses allowed under this Agreement) and for all software, licenses, materials and/or bonding delivered by the Contractor up to the effective date of the termination or suspension, as the case may be, plus such other charges as may be agreed upon by the parties.

C. Effect of termination. Upon the termination of this Agreement, under Section 8(A) or 8(B), all licenses previously granted shall be revoked, and each party shall return to the other all software, documents, information, or other materials owned by the other party.

ARTICLE 9. PATENT AND COPYRIGHT INDEMNIFICATION

- a. The Contractor shall defend or settle any PATENT AND COPYRIGHT INFRINGEMENT suit or proceeding brought against County by a third party arising out of, or relating to, County's own internal use of the Software provided that Contractor is given written notice within ten (10) days of receipt of notice of such claim and is given information, reasonable assistance and sole authority to defend or settle the claim. Provided, however, in any suit or proceeding in which it is alleged that the infringement is based upon actions of the County excluded under (c.) below and the matter is finally settled (with the consent of Contractor) or held by a court of competent jurisdiction, including appellate proceedings, that such infringement did not arise as a result of any action of County covered under (c.) below, then the Contractor shall pay all costs incurred by County in defending such claim, including reasonable attorneys' fees.
- b. The Contractor, at its option, may obtain for the County the right to continue using or to replace or modify the equipment or Licensed Software involved so it becomes non-infringing; or if such remedies are not reasonably available, grant the County a refund, based on the County's net book value, for the equipment or Licensed Software provided pursuant to this Agreement and accept the return of the infringing product.
- c. The Contractor shall have no obligation under this Section if the alleged infringement or violation is based upon the use of the Software in combination with other hardware or software (other than as installed by the Contractor) including tailoring, customizing, modifications or enhancements provided by the Contractor to conform to the Requirements and Specification Validation or from modifications, enhancements or changes not provided by the Contractor.
- d. THIS ARTICLE STATES THE ENTIRE LIABILITY OF CONTRACTOR FOR PATENT OR COPYRIGHT PROTECTION INFRINGEMENT BY THE LICENSED SOFTWARE OR THE EQUIPMENT OR ANY PORTIONS THEREOF.

ARTICLE 10 LIMITATION OF ACTIONS AND LIABILITY

- a. Neither party shall be liable to the other for any loss, damage, failure, delay or breach in rendering any services or performing any obligations hereunder to the extent that such failure, delay or breach results from any cause or event beyond the control of the party being released hereby ("Force Majeure"), including, but not limited, to acts of God, acts or omissions of civil or military authorities.

If either party is prevented or delayed in the performance of its obligations hereunder by Force Majeure, that party shall immediately notify the other party in writing of the reason for the delay or failure to perform, describing in as much detail as possible the event of Force Majeure causing the delay or failure and discussing the likely duration of the Force Majeure and any known prospects for overcoming or ameliorating it. Both parties agree to take any commercially reasonable measures to overcome or ameliorate the Force Majeure and its adverse effects on this Agreement, and to resume performance as completely as is reasonably possible once the Force Majeure is overcome or ameliorated.

- b. In no event shall Contractor or its officers, agents and employees be liable to County for any loss of profits, consequential, incidental, indirect or special damages under any circumstances even if Contractor has been advised of the possibility of same except for the amount of direct damages to real or personal property and personal injury caused by the negligent acts, errors or omissions of Contractor or its officers, agents and employees.
- c. In any event, the Contractor's liability for damages (except for damage to real or personal property or personal injury as provided above) under any theory of liability or form of action including negligence, to the extent permitted by law, shall not exceed the total amount paid by the County to the Contractor under this Agreement.
- d. This Article 10 shall survive the failure of any exclusive remedy.

ARTICLE 11. NOTICE

All notices required or permitted to be given by one party to the other under this Agreement shall be sufficient if sent by Certified Mail, Return Receipt Requested, to the parties at the respective addresses set forth above or to such other address as the party to receive the notice has designated by written notice to the other party.

Notices to the County shall be to the attention of:

Ms. Beth Mahn, Collector
Jefferson County Administration Center
729 Maple Street
Hillsboro, MO 63050

Notices to the Contractor shall be to the attention of:

Mr. Andrew Teed
Senior Vice President
Cole Laver Trumble Company
3199 Klepinger Road
Dayton, Ohio 45406

ARTICLE 12. GOVERNING LAW

This Agreement shall be interpreted under the substantive law of the State of Missouri, as it existed and was interpreted on the date of this agreement. In the event that the laws of the State of Missouri change, so as to create additional work for the Contractor not provided for in this Agreement, the County shall allow the Contractor a reasonable extension of the completion date and additional compensation to be negotiated.

ARTICLE 13. CONSENT TO JURISDICTION, VENUE AND SERVICE

The Contractor consents and agrees that all legal proceedings related to the subject matter of this Agreement shall be maintained in courts sitting within the State of Missouri. Contractor further consents and agrees venue for State court proceedings shall be in the County of Jefferson, Missouri, and no court actions commenced in Missouri shall be transferred or removed to any other State or Federal court.

ARTICLE 14. COVENANTS BY THE COUNTY

The County hereby covenants and agrees:

- a. That _____ is hereby appointed as the County's Project Manager with respect to the services to be performed by the Contractor pursuant to this Agreement. The County's Project Manager shall have the authority to transmit instructions, receive information, interpret and define the policy of the County and make decisions pertinent to services covered by this Agreement. The County's Project Manager shall have the right, from time to time, to designate another employee of the County of Jefferson to serve in the absence of the Contract Project Manager. The County reserves the right to designate a different Contract Project Manager, provided that the Contractor is given written notice thereof.
- b. To make such facilities and properties as are reasonably necessary for the performance of work available and accessible for use by the Contractor during normal working hours as may reasonably be required by the Contractor for the performance of this Agreement.
- c. To perform at no cost to the Contractor such tests of equipment, machinery and facilities of the County in a timely manner as may be reasonably required in connection with the work under this Agreement. The tests to be performed must be within the ability and capability of the County's equipment and personnel.
- d. To give prompt notice to the Contractor whenever the County observes or otherwise becomes aware of any defect in the performance of work under this Agreement.
- e. To give careful and reasonable consideration to the findings and recommendations of the Contractor and to respond in a timely manner so as not to unduly delay the Contractor's work called for by this Agreement.

ARTICLE 15. DISPUTE RESOLUTION

Disputes shall be resolved as follows: through good faith negotiations by the designees identified in this Agreement after written notice and if not resolved by such designees after seven (7) days, Contractor shall at or after the end of the seven (7) day period submit its claim with the basis for the dispute in writing to the Jefferson County Counsel for a determination and handling. Any dispute resolution agreed to by the County's Counselor, constituting a material change in this Agreement or providing for payment different than of the amount established under this Agreement, will not be final until such changes are incorporated into a written Amendment to this Agreement by means of the County's normal change order process. If such dispute involves a payment due, the County shall, as promptly as reasonably possible after resolution of such dispute, forward payment to Contractor of any amount determined to be due and owing.

Any dispute not resolved in accordance with this Article 15 may be resolved by recourse to litigation in accordance with the laws of Missouri with venue in the County of Jefferson.

ARTICLE 16. INDEMNIFICATION

Except as provided below, the Contractor agrees to defend and save harmless the County, its officers, agents and employees against all claims, demands, payments, suits, actions, recovery, and judgments of every kind and description arising out of the performance of this Agreement, for personal injury or property damage brought or recovered against it by reason of any negligent action or omission of the Contractor, its agents, or employees and with respect to the degree to which the County is free from negligence on the part of itself, its employees and agents.

To the extent permitted by law, neither party shall be liable to the other for consequential, indirect or incidental damages, including, but not limited to, loss of tax revenue or claims related to valuation of property, whether based in contract, negligence, strict liability or otherwise.

ARTICLE 17. INSURANCE

The Contractor will not commence work under this Agreement until the Contractor has obtained all insurance under this section. The Contractor shall obtain, at its expense, the following minimum amounts of insurance (inclusive of any amounts provided by an umbrella or excess policy):

The Contractor shall carry Public Liability Insurance in the amount of \$1,000,000 including protection for bodily injury and property damage with a combined single limit of \$1,000,000 and \$500,000 for each occurrence naming the County as the additional insured only to the extent of obligations assumed by the Contractor under this Agreement.

The Contractor shall also maintain Automobile Liability Insurance providing limits of \$1,000,000 per occurrence, and the Contractor shall provide Workers' Compensation Insurance. The Workers' Compensation Insurance shall provide coverage under the Compensation Act of Missouri and shall provide employer's liability insurance in the amount of \$100,000.

Certificates of Insurance shall be supplied to the County by the Contractor detailing the above coverages. These certificates will be issued by a carrier authorized to do business within the State of Missouri.

ARTICLE 18. LEGAL RESTRAINTS AND LIMITATIONS

The Contractor acknowledges that the County, as a unit of local government and a political subdivision of the State of Missouri, is subject to restraints, limitations, regulations, and controls imposed or administered pursuant to numerous applicable laws, ordinances, rules and regulations of federal, state, regional and certain local governmental agencies or authorities. The Contractor agrees that all professional services rendered or performed by the Contractor pursuant to the provisions of this Agreement shall be in compliance therewith.

ARTICLE 19. SOLICITATION OF AGREEMENT

The Contractor warrants that it has not employed or retained any company or person other than a bona fide employee working solely for the Contractor to solicit or secure this Agreement, and that it has not paid or agreed to pay any company or person other than bona fide employee working solely for the Contractor, any fee, commission, percentage, brokerage fee, gift, contingent fee or any other consideration contingent upon

or resulting from the award or making of this Agreement. For breach or violation of this warranty, the County shall have the right to annul this Agreement without liability or at its discretion to deduct from the Agreement price or consideration or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

ARTICLE 20. INDEPENDENT CONTRACTOR

The relationship of the Contractor to the County shall be that of an independent contractor and no principal-agent or employer-employee relationship is created by this Agreement.

ARTICLE 21. CONFLICT OF INTEREST

The Contractor covenants that it has no public or private interest, and will not acquire directly or indirectly any interest which would conflict in any manner with the performance of its services. The Contractor warrants that no part of the total contract amount provided herein shall be paid directly or indirectly to any officer or employee of the County as wages, compensation, or gifts in exchange for acting as officer, agent, employee, subcontractor or consultant to the Contractor in connection with any work contemplated or performed relative to this Agreement.

ARTICLE 22. SUBCONTRACTORS

It is expected that the Contractor and their sub-contractor Akanda Innovation, Inc. shall have standard in-house capability to provide all the services required by this Agreement; however, should the Contractor find it necessary to utilize the services of additional subcontractors, the Contractor shall first obtain the written approval of the County. The Contractor shall also require each subcontractor to adhere to applicable provisions of this Agreement. The utilization of any subcontractor by the Contractor shall not relieve the Contractor from any liability or responsibility to the County pursuant to the provisions of this Agreement or obligate the County to the payment of any compensation to the subcontractor or additional compensation to the Contractor.

ARTICLE 23. ASSIGNMENT

No assignment of this Agreement or any right or interest herein by either party shall be effective unless the other party shall first give its written consent to such assignment. The performance of the Agreement by the Contractor is the essence of this Agreement. Notwithstanding, the Contractor may, with the County's consent, assign this Agreement to an affiliate or subsidiary of the Contractor or its parent corporation, or assign its rights to receive payments hereunder.

ARTICLE 24. NON-DISCRIMINATION PROCEDURES

During the performance of this Agreement, the Contractor agrees as follows:

- a. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, sex, color, national origin or age, and will take affirmative action to insure that all employees and applicants are afforded equal employment opportunities without discrimination because of race, creed, sex, color, national origin or age. Such action will be taken with reference to, but shall not be limited to, recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of training or retraining (including apprenticeship and on-the-job training).
- b. No person in the United States shall, on the grounds of race, creed, sex, color, national origin or age, be excluded from participation in, be denied the proceeds of, or be subject to discrimination in the performance of this Agreement.

ARTICLE 25. AUTHORITY TO EXECUTE

Each of the parties hereto covenants to the other party that it has lawful authority to enter into this Agreement, that the governing or managing body of each of these parties has approved this Agreement and that the governing or managing body of each of the parties has authorized the execution of this Agreement in the manner hereinafter set forth.

ARTICLE 26. SEVERABILITY

If any provision of this Agreement shall be declared invalid or unenforceable, such invalidity or unenforceability shall not affect the whole Agreement, but the whole Agreement shall be construed as if not containing the provision, and the rights and obligations of the parties shall be construed and enforced accordingly.

ARTICLE 27. NO WAIVER

The failure by any party to exercise any right provided for herein shall not be deemed a waiver of any right hereunder.

ARTICLE 28. LAW CHANGES

This Agreement and the system will be in compliance with the laws and regulations of the State of Missouri and Jefferson County as they exist as of the execution date of this Agreement.

The Contractor agrees to make changes to iasWorld resulting from future Missouri State or Jefferson County laws or regulations for a fee to be determined and negotiated based upon the following:

- a. Changes required as a result of State of Missouri laws and/or regulations. Contractor agrees that any changes necessitated as a result of State law and/or regulation changes will be covered in accordance with Exhibit 6, Appendix A of this agreement, which states that as part of the maintenance of the software, eighty base hours per state, per year are included in the maintenance support to cover changes necessitated by state law and/or regulation changes. If a change is required that shall exceed the eighty hours provided, BEFORE COMMENCING ANY WORK, Contractor shall submit to County, in writing a description and fees related to the work required for compliance. Fees that exceed the eighty hours in the maintenance contract shall be prorated by tax parcel unit cost and the County shall be billed a prorated share of the fees which exceed the eighty hours of the State's portion assessed by Vendor. The prorated share for the County will be determined by the County's percentage of tax parcels as compared to the total tax parcels in the State from all Counties which utilize this license and need the same modification. Any agreed fees shall be documented through the County's change order procedure.
- b. Any changes required as a result of Jefferson County specific requests, will be evaluated by Contractor and pricing negotiated with County. PRIOR TO COMMENCING ANY WORK, the scope of work and related fees shall be documented through the County's change order procedure.

ARTICLE 29. NON-SOLICITATION

During the Time for Performance and Completion (Article 2) and for a period of six months following the project completion date, the County will not solicit for employment or hire any Contractor employee without the express written consent of the Contractor.

ARTICLE 30. EXHIBITS

The documents listed below have been attached hereto and are incorporated herein as a part of this Agreement.

Exhibit Number

- 1 Scope of Work
- 2 Project Payment Schedule
- 3 iasWorld Baseline Description
- 4 Software License/Sublicense Agreement
- 5 Hardware Configuration
- 6 Ongoing Maintenance and Support
- 7 County Responsibilities

IN WITNESS WHEREOF, the parties hereto have set their hands to duplicates of this Agreement this

31st day of January, 2006.

JEFFERSON COUNTY, MISSOURI

BY: Mark A. Mertens

BY: Edward Z. Kemp

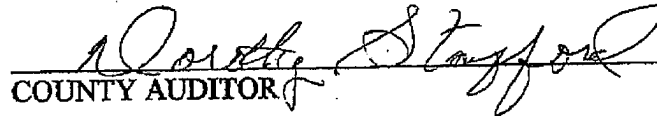
BY: Patrick J. Humphrey

TYLER TECHNOLOGIES, INC.
CLT Division

BY: John R. Baker
John R. Baker
Sales Support Manager

Matthew K. [Signature]
Witness

I hereby certify under section 50.660 RSMo there is either: (1) a balance of funds, otherwise unencumbered, to the credit of the appropriation to which the obligation contained herein is chargeable, and a cash balance otherwise unencumbered, in the treasury, to the credit of the funds from which payment is to be made, each sufficient to meet the obligation contained herein; or (2) bonds or taxes have been authorized by vote of the people and there is a sufficient unencumbered amount of the bonds yet to be sold or of the taxes levied and yet to be collected to meet the obligation in case there is not a sufficient unencumbered cash balance in the treasury.


COUNTY AUDITOR

APPROVED AS TO FORM

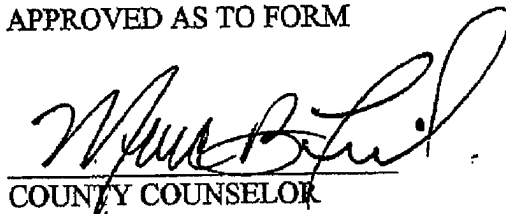

COUNTY COUNSELOR

EXHIBIT 1 – SCOPE OF WORK

Project Vision

Tyler Technologies' (Tyler | CLT) vision is to establish its *iasWorld* System into the Jefferson County Collector's Office as the staple end-to-end solution for property tax and assessment functions.

This project covers integration, configuration, and testing of the *iasWorld* modules: Assessment Administration (AA), CAMA (CA), Inquiry & Appeal Tracking (I&AT), Personal Property (PP), Tax Billing & Collection, Delinquent Tax, Landisc™, *iMaintain*, *iEnable*, *iCare*, *iAnalyze*, *iRespond* and *iDoc*. It also covers the aspects of implementation and set-up, conversion, possible modifications, training, and transition to production for these modules.

Tyler | CLT has a vision of not only implementing *iasWorld*, but establishing a long term relationship with Jefferson County.

Scope

The Contractor will perform a Gap/Fit Analysis of current business processes, technical environments and current interfaces, and will document any site specific setup and configurations needed to *iasWorld*. It is the Contractor's intent to install the base *iasWorld* software modules as initially delivered to Forsyth County, GA as the basis for this project. The Contractor will install the *iasWorld* software modules on County hardware, map the existing County data for conversion, and perform test and final conversion. The Contractor will also apply set-ups and modifications to installed modules, update system documentation and deliver documentation and training to the County. This will be accomplished in several phases. The following are some specific tasks and deliverables during each phase.

Phase 1: Project Start-up

Project Start-up

The Contractor will execute project start-up tasks including internal project planning, establishment of project control procedures, project staffing and assignment of key staff, procurement of resources needed to internally support the execution of project tasks, initiation of subcontractor planning and coordination tasks, schedule the assignment of the project team, etc. The Project Start-up fee is billable within 30 days of the initial Project Plan and initial project control documents being delivered.

Project Scope Revisions and Clarifications

The Contractor and the County will review and agree upon the initial revisions and clarifications to this scope of work after completion of the Gap Analysis Phase.

Deliverable: Project Scope Document (as agreed between Contractor and the County)

Project Work Plan

The Contractor shall meet with the County within thirty (30) days of contract signing to review the detailed planning calendar, or Project Work Plan, with County staff. The Project Work Plan will expand upon the delineation of tasks identified in this Scope of Work, indicating responsible parties, estimated effort, projected time frames and task dependencies. This Work Plan will be revised during the initial phases of the contract as the additional information becomes available, further defining project tasks. The Contractor will provide to the County a Project Plan on a bi-weekly basis, along with a bi-weekly status report, for review and discussion. Further, should any changes to the critical path items of the Project Plan occur during the two-week period, the Contractor will review discuss the impact of these changes with the County.

Deliverable: Initial Project Work Plan

User Training Plan

A general training plan will be developed in conjunction with the Phase 1 work plan, subject to refinement during the implementation and County approval. The plan will be executed during the training phase.

Deliverable: Initial Training Plan

The above items will be addressed at a relatively high level, but in sufficient detail to identify the priorities for the different system and project elements so that the project work plan tasks can be properly coordinated for timely implementation.

Phase 2: Requirements Analysis:

Gap/Fit Analysis

The Contractor and County staff will meet for a series of interviews between the Contractor project team, the County managers, power users and end users. The purpose of the Gap/Fit Analysis is to document how the County currently does business. This process allows the Contractor to understand the business process of the County and identifies any specific configurations and modifications that will be needed. Also evaluated during the Gap/Fit Analysis are interfaces and technical aspects of the system. A part of the Gap/Fit Analysis is a system walk-through using the demo system. During this walk-through the Contractor and the County will review current system operations and data files and the treatment of Assessment and Collector Functions within iasWorld. The walk-through further allows the identification of any changes and modifications that will be needed to meet the County's required business processes.

Deliverable: Document describing Contractor's understanding of the County's business processes.

Site Specific Modifications to be made to Base System by Contractor

The Contractor and the County will identify candidate iasWorld modifications, including interfaces to other systems, as a result of the Gap/Fit Analysis. The Contractor will produce an estimate of the development effort in hours for each candidate change. The County will review the list of changes and direct the Contractor as to which changes the County wants made. The Contractor has included up to four hundred (400) hours for requested changes. Of that batch of hours, two hundred (200) hours will be used to implement those modifications defined by the Gap/Fit Analysis. The remaining two hundred (200) hours will be used to implement the iMaintain functionality. The County will only pay for the actual hours used by the Contractor to complete the requested changes, and hours in excess of the four hundred (400) hours included in the base, will be billed at the Contractor's prevailing Time and Materials rates.

Deliverable: Document describing, at a high level, how various "gaps" between the iasWorld functionality and the clients business processes will be resolved.

Hardware Validation and Final System Architecture

The Contractor will work with the County to validate the hardware and any 3rd party dependent software for the install and make any recommendation for configuration changes. It will be the responsibility of the County to pay for these changes.

Deliverable: Documentation of Hardware Environment.

Refined Scope of Work

The Contractor and the County will refine the project scope based on the Gap/Fit Analysis. This will set the scope of the rest of the project and be the basis for revisions to the project plan. The Refined Project Scope Document will receive County's approval before the Plan is delivered. Any scope changes made after the Refined Project Scope Document has been delivered, will need to be in writing to the Contractor and are subject to additional fees and shall be handled through the County's change order process.

Deliverable: Refined Project Scope Document

Deliverable: Revised Project Plan

Data Conversion Source File

The County and the Contractor will review source files and source file descriptions so that the County will provide the Contractor with an acceptable file and file layout of the County's present data for converting into the new system.

Phase 3: Software Installation:

Install iasWorld

The Contractor will install its current release of iasWorld on the designated hardware (or alternate hardware to be provided by the Contractor, should hardware installation be delayed) to be used to conduct a detailed system walk-through as a point of reference for defining the Detailed System Specifications and determining the detailed conversion requirements.

Deliverable: County Performance of iasWorld Module Checklist

Phase 4: Implementation

System Implementation and Set-up Definition

The County and the Contractor will define and document the *iasWorld* set-up and configuration necessary to meet the County's requirements as part of the Gap/Fit Analysis.

Modification Specifications

The Contractor will, based upon the information gathered during the Gap Analysis, develop detailed system modification specifications for each of the *iasWorld* modules.

In conjunction with this effort, the Contractor will provide firm estimates of the programming effort for the modifications.

The County will develop specifications for the various reports and other outputs which have been identified as its responsibility in conjunction with the system walk-through.

Deliverable: Detailed System Modification Specifications

Sign-Off on Modification Specification

The County will review and upon approval, sign-off on the detailed specifications developed by the Contractor within ten (10) days of delivery (by module or sub-module). The approved specifications will be the basis for the Contractor's modification effort.

Implementation Parameters

In addition to reviewing the parcel level data, the Contractor will provide specifications and or instructions to the County for setting up the various reference tables used by *iasWorld*, including cost tables, land pricing tables, and various edit tables.

Programming Supervision

The Contractor will integrate the County modification requirements into its overall *iasWorld* release plan to facilitate the baseline of as many of the modifications as are reasonably feasible and mutually agreed to, minimizing the ongoing support issues relative to custom code. Scheduling of the modifications will take into account the release plans for the various subsystems as well as the extent of the modifications and the coordination of the completion of the modifications with the system test, conversion and implementation plans.

System Test Plan

The County and the Contractor will develop an outline for system testing which provides guidance for the County and Contractor staff in testing the modifications as part of overall product acceptance testing.

Deliverable: Written System Test Plan (as agreed between Contractor and County)

Programming Modifications

The Contractor shall make necessary modifications to the *iasWorld* modules in accordance with approved modification specifications including site specific printed reports such as batch and on-demand tax bills.

Data Interfaces to Existing Systems

The County and the Contractor will review, determine, and define an agreed to format for interfacing

the County's present Geographic Information System with the new public access system.

User Documentation Updates

The Contractor will review and update current documentation to reflect the modifications which are developed as part of this modification effort.

Deliverable: Revised Documentation

Phase 5: Data Conversion

Data Conversion Programming

The Contractor will map out the data, write scripts to convert the data, and load the data to the iasWorld database.

Conversion of Electronic Information

The Contractor's approach to conversion is to develop a series of Intermediate File Layouts (IFL's). Data from each client file or database is extracted into the IFL format. Standard programs then upload the data into the appropriate iasWorld tables. These programs will be tested against sample data files in advance of the production conversion. The Contractor will request balancing reports from the County to use in verifying the results conversion process.

The Company assumes that the County will be responsible for creating an extract file of the existing data and related valuation tables to an agreed upon structure. The County will provide the Company with documentation for the existing files, reference tables, valuation tables, computational procedures, etc., and make source code for programs available as needed to clarify the computations of the current system.

The County will provide flat files and file layouts of the data to be converted. Flat files will include a tax year to facilitate the loading of historical data. Since iasWorld is a multi-year system, the conversion of historical data will be directly tied to the appropriate tax years. The Company assumes that the County will provide the history data extracts in the same file format as the current year data.

The Company will convert the data as stipulated in our proposal. This includes up to 5 years of history and the following files:

Assessor:

- Real Estate File consisting of Residential, Agricultural and Commercial
- Comments File
- Tiff Image File
- Mobile Home File
- Personal Property File
- Personal Property Master
- Comments file associated to Master File
- Personal Property Detail
- Sketches and JPEG Photos

Collector:

- Real Estate consisting of Residential, Agricultural and Commercial
- Comments File
- History file shows changes to records
- Personal Property

- Master File
- Detail File
- Comments File
- Master History
- Detail History
- Merchant File
- NIDS File
- Rates Table by year

Conversion Assistance in Testing and Loading of Data Files

The Contractor will assist the County in loading converted data for the various *iasWorld* modules. Quality control and verification of data is the responsibility of the County, with Contractor assistance.

1. Contractor and County will load existing data into *iasWorld* structure.
2. Contractor and County will conduct Data Load Test with various reports for validation.

Responsibilities for Data Conversion

The conversion process involves the following steps:

- Obtain files from the County.
- Obtain balancing reports from the County.
- Determine the *iasWorld* database modules implicated.
- Identify the number and type of columns in each *iasWorld* database table.
- Set the conversion mapping from the legacy systems to *iasWorld*.
- Run the conversion programs to create the various files in the IFL format for *iasWorld*.
- Import the tables into *iasWorld* in the appropriate sequence using the standard conversion programs.
- Generate totals for balancing record and parcel counts and assessed, appraised, tax value totals.
- Run batch edits to identify data failing user-defined *iasWorld* edits. (These may prevent properties from processing successfully in *iasWorld* without correction.)
- Load applicable edit tables, land pricing tables and, if applicable, cost tables.
- Run *iasWorld* land valuation and cost procedures.
- Run value comparisons to identify properties for which the land or improvement values are significantly different. Research recurring differences to verify that there is not a systematic conversion issue.

The County staff will be involved in spot checking selected parcels to verify that all of the data from the old records have been captured through the conversion process (this will also serve to familiarize the staff with where the data has been mapped in the new system). The County staff will report any discrepancies they are unable to resolve. The County will be involved working the edit and value comparison reports and resolving those error conditions that will prevent *iasWorld* from functioning correctly. Edit and value comparison reports are then worked with the County to clean up and balance the conversion.

Data Conversion Controls

The establishment of control totals and computed values from the current system are critical in validating the converted files and tables. The Contractor has extensive experience in converting real estate assessment and valuation data from paper and digital records. The Contractor has an established

procedure for checking converted data from the existing system reports versus those generated by the target system. The controls generally fall into three categories.

The first category is the data that must match exactly such as:

- Number of parcels
- Appraised value
- Assessed value
- Exemption value(s)

The second category is the Control totals which are produced at least at the following levels:

- Jurisdiction wide totals
- Neighborhood totals
- Smaller geographic areas as identifiable from the County digital records

The third category, of course, is a sampling of parcels that are selected to make a field-by-field comparison of data. For example, when a categorical variable is mapped from the existing system e.g., "1 = ranch" we need to ensure that the same result is obtained in the target system.

Data verification procedures will be included with the conversion procedures. As indicated above, the initial conversion reports will identify those properties for which the converted data produces a value that is substantially different from that which was computed under the existing system. Subsequent analysis (sales ratio studies, multiple regression analysis models, etc.) of converted data will identify the need for review of key property characteristics.

Final Conversion and Loading of Data Files in Conjunction with Phased Implementation

Following the conclusion of testing in each phase, the County and the Contractor shall re-extract, convert and load then current County data into the *iasWorld* Property Tax Engine table structure, based upon the phased System Implementation Timetable. Quality control and verification of data is the responsibility of the County.

1. The Contractor will assist the County in loading existing data into the *iasWorld* structure.
2. The Contractor will assist the County in conducting the final Data Load Test with various reports for validation.

Phase 6: Training and Documentation

Delivery of Documentation

Prior to the Acceptance tests, the Contractor shall deliver to the County system documentation and training manuals in various formats for the operation and maintenance of the system. Such documentation shall include:

1. Up to five (5) copies of the applicable sections of the *iasWorld* User's Manual. This manual will be tailored to document the appropriate modules purchased by County. The Contractor will also furnish one (1) copy of the *iasWorld* User's Manual in machine-readable format.
2. The County may photocopy or otherwise reproduce the Contractor's copyrighted documentation

and training materials for training of other internal uses provided that the Contractor's statement of copyright be included on each copy.

3. The Contractor will provide a secure login and password to the *iasWorld* support site, which allows access rights to all documentation, FAQ's, Training Tutorials and links to online Training Seminars.

County Personnel Training

1. The Contractor shall develop a training plan in conjunction with the County which establishes the staff to be trained and general topics to be covered over the course of a series of eight (8) total weeks of training sessions through the phased installation and implementation period. For each session:
 - A. The Contractor shall prepare and review with the County a pre-training report identifying any system level options that should be decided prior to the training session. The County shall select the appropriate options, and the training sessions will proceed with these options in place.
 - B. The Contractor shall provide on-site training for the specified days for staff designated by the County.
 - C. Training Recording. The Contractor gives permission to video record training sessions, on-site or off-site. The County agrees to limit the use of resulting video records to internal County uses and agrees to hold the Contractor harmless from any law suits or consequential damages, including attorney's fees, occurring from the taping or review of the taped sessions.
2. The County also has four (4) total weeks of business process support to be used at their discretion. This is typically used after go-live when a client desires to have a Contractor staff member present during key points of the County's business cycle.

Phase 7: *iasWorld iTools*

Software & Services to be Implemented:

The following Software & Services will be licensed and delivered as part of this Agreement:

- Web Services Framework (*iEnable*)
- Public Access (*iCare*)
- Spatial Analysis (*iAnalyze*)
- Taxpayer Correspondence Management (*iRespond*)
- Electronic Document Management Interface (*iDoc*)
- Hosted services for Akanda hosted environment

Web Services Framework (*iEnable*)

The objective is to install and configure the base web technology frameworks called *iEnable Enterprise*. This is the common base technology used by all of the *iasWorld* applications included in this Contract.

The project team will assign a technical resource to gather and document the information needed to setup and configure the environment, including but not limited to:

- Users (who is known to the system),

- Roles (specific users having access to specific business transactions),
- Security profiles (users having limited rights to access specific transactions),
- Interface defaults (digital dashboard configuration)
- Property Records Manager (PRM) used by secure internal users for data searching, list management and pre-defined reporting.
- Content for default portal environment styles and templates (logos, colors, fonts, language)
- Interoperability plans (external system connections, external data sources, external security policies)

The initial installation, setup and configuration of *iEnable* will take place at Akanda's staging (hosting services) data center. As part of this project implementation, most of the *iasWorld* applications will be hosted at Akanda for the initial setup and configuration tasks beyond March 1, 2008. Akanda will then host the *iCare* and other *iasWorld* productivity tools through February 29, 2008. Prior to the end of this agreement, the applications will be transitioned to the County's servers. *iCare* and other *iasWorld* productivity tools can optionally continue to be hosted by Akanda, as part of a separate support and maintenance agreement.

Public Access (*iCare*) Implementation

iCare is a commercial, off-the-shelf (COTS) web application that allows the contractor to easily setup and configure the application to meet the needs of the County in regards to providing an advanced citizen-facing web portal. This portal selectively exposes all of the *iasWorld* information content, provides citizens with simple and complex search tools, and includes optimized one-click access to common reporting. All data content is web linked providing citizens with unparalleled simplification to property ownership and tax information, including history, GIS, photos, and sketch data.

The implementation team uses the standard *iCare* setup and configuration methodology which is documented within the *iCare* startup guidebook. The County and the Contractor will review the guidebook and document site specific setups, as required. Existing *iCare* sites can be used for reference during the review process. A typical timeline to deploy *iCare* is forty-five (45) days from the date data is available in the *iasWorld* format.

As part of the parallel synergy of implementation, the project team by default, implements the *iCare* application with the setup and configuration of *iAnalyze* and *iRespond*. Tasks such as documenting site specific setups will all be conducted at the same time for each of the three modules.

After the initial setup and configuration of *iCare*, the Contractor will continue to host the production version (released to the anonymous public) for the remaining months available defined by the hosting period. The hosting period starts on the first day *iEnable* is setup at Akanda's hosting data center (whether staging or production). The contract includes the first twelve (12) months of hosting services. The annual renewal of hosting services, if required, will be included within the separate support and maintenance agreement.

iCare and other *iasWorld* productivity applications can continue to be externally hosted by Akanda, as an optional deployment approach. For this contract, the Contractor will transition all *iasWorld* applications to the County's compliant data servers, after the initial setup, configuration and testing is completed.

Spatial Analysis (iAnalyze) Implementation

iAnalyze is a commercial, off-the-shelf (COTS) web application that allows the contractor to easily setup and configure the application to meet the needs of the County in regards to providing an advanced assessment analysis tool. *iAnalyze* assists the property assessment process by providing a single integrated environment that combines statistics, charting, GIS, tabular and reporting. Appraisal staff will use this application to supplement their best practice methods, including the ability to compare common analytical models. Whether the appraisal process involves sales ratio studies for market analysis, or supporting and defending sales comparables, *iAnalyze* will be the application of choice.

As mentioned, *iCare* and *iAnalyze*, along with *iRespond*, will be implemented and delivered as a delivery grouping. A typical timeline to deploy *iAnalyze* into production, including the steps to define site specific setups, configure the application and provide orientation sessions for application users is forty-five (45) to ninety (90) days from the date *iCare* is in staged mode.

The project team will assign a technical resource to document County specific setups, including analysis methodologies, such that *iAnalyze* can be configured to meet the County's need for enhanced appraisal analysis methods.

The *iAnalyze* application will be setup on the Akanda hosting center for setup, configuration and testing. The production configured version will be transitioned and setup on the County's internal data center environment, during the scheduled installation tasks for other *iasWorld* modules.

Taxpayer Correspondence Management (iRespond) Implementation

The business purpose of *iRespond* application involves the coordination, delegation and follow up of all customer inquiries, which are often tabled by various ways such as telephone calls, website inquiries, or walk in traffic at the office counter. *iRespond* allows the County staff to log, assign, track and close out activities in a timely manner, including activities created internally. This application is used throughout all business processes, but especially so during the appeals hearing process, where it provides an invaluable function in combination with the installed hearing tracking module.

A typical timeline to deploy *iRespond* into production, including the steps to define site specific setups, configure the application and provide orientation sessions for application users is forty-five (45) to ninety (90) days from the date *iCare* is in staged mode.

The project team will assign a technical resource to document County specific setups, including reviewing current methods, such that *iRespond* can be configured to meet the County's need for improved citizen service metrics.

The *iRespond* application will be setup on the Akanda hosting center for setup, configuration and testing. The production configured version will be transitioned and setup on the County's internal data center environment, during the scheduled installation tasks for other *iasWorld* modules.

Electronic Document Management Interface (iDoc) Implementation

Many *iasWorld* customers recognize the need to store their organization's existing paper documents as scanned documents within an EDMS. There are many sources in the marketplace for EDMS solutions, but a stand-alone EDMS does not meet the needs of many *iasWorld* customers for the simple reason that they desire a tight level of integration between *iasWorld* and the EDMS. In particular, they would like for parcel-related documents to be directly accessible from *iasWorld*'s parcel information displays. Tyler and our business partner, Akanda has responded to this demand by creating an EDMS integration module as part of the *iasWorld* total Property Tax solution. This section of the Scope of Work provides a summary of the Contractor's planned functionality of this module as part of this contract.

iDoc is the *iasWorld* module responsible for managing the interface with the County's EDMS solution. *iDoc* allows files in various formats to be associated with specific accounts (either parcel-based or personal property) within *iasWorld*. Once these stored documents are associated with accounts, they can be accessed from within *iasWorld* wherever account information is displayed.

Electronic documents can optionally be directly stored within *iDoc*. These documents are stored in whatever format they are provided in, although Akanda does recommend the use of Adobe Acrobat format wherever possible for its portability.

As part of this effort, *iDoc* will be setup and configured at the Akanda staging (hosting) center. After this initial setup period, the application will be transitioned to the County's internal server environment. A typical timeline to deploy *iDoc* into production, including the steps to define site specific setups, configure the application and provide orientation sessions for application users is sixty (60) to one hundred twenty (120) calendar days from the date *iEnable* is in final staged mode.

The implementation team will set up *iDoc* on the County's Staging site on the servers at the Akanda Hosting facility. The site will be configured according to the configuration defined in the finalized *iDoc* workbook that is completed by the County. After the *iDoc* workbook is completed by the County and reviewed by the implementation team, the following tasks will occur:

Review of the Staging site with the stakeholders after the site has been configured.

Completion of final minor configurations changes to the Staging site based on the issues that the stakeholders log.

Notification to the stakeholders that the issues have been resolved and that they should review the final configuration at the Staging site

One month prior to the installation at the County site, the Contractor will provide a list of dependent software and other set up that the County must have installed and completed on the County supplied server(s) 2 weeks prior to Contractor's arrival onsite.

One month prior to the installation, the implementation team will provide Pre-installation checklist that the County must complete and return to implementation team, two (2) weeks prior to implementation team's arrival onsite.

After installation on the County server(s), the implementation team will walk through the installed iDoc module with the stakeholders, using the standard demo script, which touches on various aspects of the iDoc module functionality.

The County shall provide a VPN account or dial-up access to the Contractor for use in implementing and troubleshooting any issues.

The County must have the server(s) prepared and ready with the dependent software already installed on the server(s) as per the specifications that the Contractor will provide no later than one (1) month prior to the installation. The server(s) must also be set up on County's network. This must be completed two (2) weeks prior to implementation team's arrival onsite.

iDoc is designed to support the development of connectors allowing it to work with most widely-used enterprise-level EDMS products such as Microsoft Sharepoint, Xerox DocuShare, Hummingbird DM, and FileNet Content Manager. These connectors work with the EDMS's published API, allowing iDoc to add, modify, query, and manage documents stored within the EDMS.

The iDoc interface is based on the standard web service model. Included in our base contract price is sixteen (16) hours identified for the iDoc interface to the County's Fidar EDMS. Should this interface effort exceed these sixteen (16) hours, additional compensation may be negotiated.

Phase 8: Web-based User Interface (iMaintain)

The iMaintain phase is concerned with the installation, setup, configuration and optimization of the user data maintenance environment, called iMaintain. The business purpose of the iMaintain environment provides the County with an expansive, web-based, task oriented, transaction environment that streamlines and simplifies the business processing of assessment and taxation tasks.

Refer to the overview of iMaintain in the software description exhibit.

The iMaintain application to be installed at the County is a highly configurable environment such that the needs of a particular County can be met without changing source code.

iMaintain will be initially configured at Akanda's data center for the purpose of allowing the County's staff to review the setup and configuration of all applicable baseline iMaintain transactions and user interfaces. All site specific setups and modifications will be applied to the staged version and the County staff will participate in the review and approval of such changes.

The following tasks are concerned with the overall iMaintain requirements, setup, configuration, and installation at the County.

- Receive Sample Database (from the data conversion task)
- Akanda loads sample data on Staging Server DB
- iMaintain module configuration on the Staging Site
- Load of Base Transactions to staging site
- Test basic module functionality

- Identify which transactions will be deployed for client
- Activate identified transactions for County
- Identify County Site-specific transactions
- Generate County List of Value (LOV) tables
- Setup iMaintain Roles, Users & Content Configuration
- Role creation/configuration and User assignment to roles
- Content Configuration
- Setup iMaintain 'On Demand Reports' configuration
- Transaction Template Configuration
- Setup/confirm required LOVs for deployment
- For each transaction, modify the baseline template to meet site specific requirements
- Transaction Quality Assurance
- Regression testing of transaction
- Ensure correct LOVs are being displayed
- Modify transactions/templates per QA feedback
- Release Transactions to County for review
- Train County on the general user/role security, iMaintain interface
- Walk through each transaction with the County, highlighting features, changes and general usage (this is not full class room training. It is introductory training to give the County enough knowledge to test the transactions)"
- Receive feedback on additional changes that may be required
- Template enhancements as needed
- User Acceptance Testing
- County reviews transactions, tests basic operation and business rules on Staging Site - based on QA scripts
- County signs off on transactions
- Install transaction on County's Test Environment
- Verification of Transactions in Test Environment
- Identification of additional configuration parameters
- Final Configuration
- Install transaction on County's Production Environment
- Additional Configurations applied to Production Environment if necessary
- Verification of Transactions in Production Environment
- County sign off
- Formal class room training for all transactions
- Release into Production

Phase 8a – Site Specific Setup Review & Documentation

The Contractor shall review and use the set of iMaintain transactions that have been configured for other Missouri customers as the base transactions for Jefferson County. This set of Missouri based transactions, as implemented in Fulton County, should meet the majority of the County's requirements with little or no configuration changes.

Should configuration changes be required, the Contractor has included up to two hundred (200) hours to complete this effort as part of this base contract. Should the iMaintain implementation take less than 200 hours, the remaining hours can be used for other site-specific configurations through the term of this agreement. Should the configuration change effort require more than two hundred (200) hours, then the

additional effort will be provided upon the mutual agreement between the County and the Contractor as to the scope and fee for the additional configuration changes, with the terms of any such agreement to be set forth as a future amendment to this contract.

The process for defining the County's requirements is a series of walkthrough sessions to agree on the setup and configuration required. Initial presentation of the Missouri iMaintain baseline transactions as generically configured for the County will be done via access to the Contractor's staging (hosting) facilities.

In general, initial activities including the walkthrough sessions will be performed using a staged version of the application. Once the walkthrough sessions are complete and application setups are complete, the module would then be installed on County computer facilities for production purposes.

Phase 8b – iasWorld Set-up/Configuration, Modifications, Testing

The Walkthrough setup document defines the amount of services required to setup and configure iMaintain to meet site specific business functionality required by the County. The project includes an estimated block of hours to perform these tasks. After the Walkthrough document is completed, the Contractor and the County will review the budgeted effort in comparison to the exact effort to meet the desired requirements.

Listed in the tables below are the baseline transactions and general features that will be provided to the County as part of the iMaintain application. Transactions represent business functions that are processed by the County, condensed into a single browser data maintenance interface. Associated to each transaction is a series of master user interface templates (similar to forms). During the setup process, business 'roles' will be defined and master templates will be associated to these roles. Selected templates will be modified to simplify the total amount of fields required for data entry roles, thereby streamlining the overall interface and increasing usability and efficiency.

The listed general features are independent of the following baseline transactions, but they will be made available when appropriate for a particular transaction. The following list of baseline transactions may include transactions that are not applicable to the County's business processes, but are included for completeness.

No.	Baseline Transactions
1	Owner Transfer
2	Residential CAMA
3	Commercial CAMA
4	Legal Description
5	Notes -1
6	Notes- 2
7	Notes -3
8	Homestead
9	Farm Use

10	ASMT
11	Commercial Income
12	Condo
13	Copy a Parcel
14	Re/Deactivate
15	Special Assessment: Projects
16	Special Assessment: Solid Waste
17	Special Assessment: Maintenance
18	Split a parcel
19	Combo
20	Conveyance
21	Real Estate Transfer
22	Exemptions
23	Manufactured Homes
24	Tenant Values
25	Personal Property (Ohio specific)
26	Personal Property
27	Central Assessment
28	Tax Adjustment: Parcel District Maintenance
29	Tax Adjustment: Adjustment
30	Tax Adjustment: Charge
31	Tax Adjustment: Escrow Interest Adjustment
32	Tax Adjustment: Deferral Maintenance
33	Tax Adjustment: Payment contract unapplied
34	Tax Delinquency: Foreclosure
35	Tax Delinquency: Bankruptcy
36	Tax Delinquency: Levy
37	Tax Delinquency: Payment Contract Plan
38	Tax Delinquency: FIFA DQ18
39	Tax Delinquency: Certificate of Delinquency
40	Tax Delinquency: Forfeited Land
41	Tax Collection: Mailing
42	Tax Collection: Returned Mail
43	Tax Collection: Notes -4
44	Tax Collection: Payer Update

44a	Tax Collection: Payment Posting
45	Tax Collection: EFTS
46	Tax Collection: Reversal/Void
47	Tax Collection: Refund
48	Tax Collection: Escrow Plan
49	Tax Collection: Escrow Scanned
50	Tax Collection: Batch Pay Review: Lockbox
50	Tax Collection: Batch Pay Review: Mortgage
50	Tax Collection: Batch Pay Review: Batch Pay
51	Ag Recoup
52	Alternate Owner
53	Alternate Address
54	Alternate PID
55	Sales History Maintenance
56	Hearing Track Valuation by PID
57	Hearing Track Scheduling

Note: The above iMaintain transaction types require access to the underlying iasWorld application business rules and data schema and as such are dependant on the customer's right-to-use license for each dependant iasWorld application.

Other General iMaintain Feature Descriptions

Future Year - Display the fact that data for a future year exists for a transaction. This could be an icon or the value of the highest tax year. The initial GET could include this in the xml and it could be saved in the transaction table to make subsequent retrievals more efficient.

Multi-Yr & Multi-Jurisdiction - Users need to be able to query a parcel with tax year and Jurisdiction as part of the query keys. Most current IAS screens allow a wild card query by year and the ability to scroll through the years. On most sites there is only one Jurisdiction and even on Multi-Jurisdiction sites most users only maintain one Jurisdiction.

Security by Year - Users need to be prevented from changing data in some tax years while they can change others. Currently IAS divides the security by previous, current, and future years with a permission flag for each. Currently in most cases users can query data for any year but are limited in what they can change. Similarly, users need to have permissions limited by Jurisdiction. Currently a user profile allows a user to only query and update one Jurisdiction or all Jurisdictions'. A possible enhancement is a profile where a user may have access to a list of Jurisdictions and update permissions on all or none or a subset.

History Display - There is an icon on the current client server screens, which allow a user to display all the versions of data for a table. This view is read only and works like a "toggle." The user can scroll through the various versions and examine the history of changes.

Audit Display - Currently a user can use an icon to highlight in color fields on the screen, which have changed since the last version of the data. A different color is used for database changes, changes made on the screen since querying the data, and both. There is a table, which can be used to limit which fields are highlighted although this is less important. For iasWorld the screen changes would be any since the data was read from the database. This is needed for both the current data and history.

On-Demand Print - Currently administrators can run any IAS stored report, which meets certain query criteria to an iasWorld UI form or menu location. A login staff member can then access these reports via the iasWorld UI. Usually these are related to data on the screen which pass field and search parameters to the requested report. Example reports such as PRCs, tax bills, exemption applications, etc. are typically executed for the parcel displayed on the screen. The resulting report in PDF format is usually sent directly to a local or network accessible printer.

Sketch Display - Graphic display of image screen capture.

Sketch Edit - When data is keyed into a sketch vector field (VECT) the data needs to be edited to be sure there are no errors which prevent drawing the picture. There are current C and COBOL programs, which do this. The edit now occurs after the cursor leaves the vector field. The current sketch edit also computes the area and perimeter of the segment.

GIS Link - Link to maps where available.

ADDRINDX - This table has alternate addresses for a property. Columns in the table link it a table/row for the parcel. The table also has to be considered for address queries.

ALT-INDX - This table has alternate keys for a property. These may be something like a legacy parcel id or special pointers, which may not exist for all parcels. There may be more than one alternate id on a parcel. Users may want to query a transaction using the alternate id.

OWNALT - This table has alternate names for a property owner. These are such things as a business name or alternate name. Columns in the table link it a table/row for the parcel. The table also has to be considered for owner queries.

Master Index (Bk, Pg, Subdiv) - These are queries on an index screen, which produce a list of one or more parcels a user can then select which one he wishes to query. The user also may want to return to the list to pick another parcel.

Option/Switch to Query Deactivated Records - Users normally do not want to see deactivated records. However, many screens have a switch, which allows the user to include them in the query for when they want to see the data or need to reactivate. On a deactivated record the only field that can be maintained is the deactivate date. However, if it is removed other data can be changed.

Highlighting By TAXYR - To help avoid changing data in the wrong tax year users want a strong visual clue for which year they are working in. The iMaintain header bar provides a color association to Tax Year to assist the user with a visual cue.

EDMS Link - Link to EDMS where available.

Photo Link - Link to pictures where available. This may be Landisc™ or other source such as a directory of jpg files.

Sketch Mouse Draw - Using a mouse to draw and change a sketch.

Sales History Maintenance - When some sales (based on defined criteria) are added to the database a copy of the CAMA data is stored in a set of separate sales history tables. The key to this data is the salekey rather than the parcel id. If the data at the time of sale was different from the data copied the user may want to update the sales data. This will require parallel transactions for RES CAMA and COM CAMA using the sales history tables with salekey as the primary key. The user may want a pull down list of possible sales for a parcel id to identify which sales need to be changed. Users may also want to have an icon to recopy the current data for a parcel or table into the sales history tables. The initial creation of the sales history tables is handled within the database and should not require any special *iasWorld* logic.

On-Line Help – On-line help will be browser base.

PHASE 8c – iMaintain install at Customer Hosting Center

During this contract stage, all iMaintain transactions and supporting setups are transitioned to the customer's hosting center. Project team members will provide post installation assistance to customer administration staff.

Phase 9: Project Close-out and Transition to Support

Final System Acceptance

The County will sign off on the delivered system upon successful completion of integrated system testing. Preliminary modules (impacted by subsequent deliveries and updates) will be flagged as conditional sign-off, pending testing of the final deliverables.

Non Phase Items

Project Management

The Contractor shall provide day to day management of the project activities including coordination of County and Contractor resource needs in scheduling meetings, review sessions, following up with Contractor staff, subcontractors and County on respective commitments.

Billing will be a level monthly amount

Optional Activities:

The Contractor shall be available to the County to address any optional activities as requested by the County.

1. The County shall notify the Contractor in writing of any optional activities it wishes to include, and approximate timetable.
2. The Contractor shall respond in writing to the County on cost and timing of requested optional activities.
3. The County will notify the Contractor in writing confirming acceptance of cost and timetable.
4. The Contractor shall perform optional activities as agreed.

Project Payment Schedule

Implementation Services (Level Monthly Billing)	Fee	When Invoiced
	\$30,985	February 1, 2006
	\$30,985	March 1, 2006
	\$30,985	April 1, 2006
	\$30,985	May 1, 2006
	\$30,985	June 1, 2006
	\$30,985	July 1, 2006
	\$30,985	August 1, 2006
	\$30,985	September 1, 2006
	\$30,985	October 1, 2006
	\$30,985	November 1, 2006
	\$30,985	December 1, 2006
	\$30,985	January 1, 2007
	\$30,985	February 1, 2007
	\$30,985	March 1, 2007
	\$30,985	April 1, 2007
	\$30,985	May 1, 2007
	\$30,985	June 1, 2007
	\$30,985	July 1, 2007
	\$30,985	August 1, 2007
	\$30,985	September 1, 2007
	\$30,985	October 1, 2007
	\$30,985	November 1, 2007
	\$30,985	December 1, 2007
	\$30,995	January 1, 2008
Total		\$743,650

First Annual Maintenance Contract to begin 3/1/2008 and will be covered under a separate agreement.

***ias*World**

Baseline Description

Presented by
Tyler Technologies, Inc.
CLT Division

3199 Klepinger Rd.
Dayton, OH 45406

Note: This Baseline Description contains confidential and proprietary information of Tyler Technologies, Inc. | CLT Division. The information provided here should not be disclosed to outside third parties without the prior written consent of Tyler Technologies, Inc.

tyler
clt division

An Overview of iasWorld

Tyler | CLT introduced iasWorld, the latest release of its proprietary property tax system, in 2002. As a next generation product, iasWorld was engineered to leverage Tyler | CLT's Integrated Assessment System database engine while taking advantage of the emerging development technologies. By building upon years of industry-leading expertise, Tyler | CLT developers brought together decades of experience with the technology of the future.

iasWorld was developed with a modular design, allowing each jurisdiction to select those modules that meet their immediate requirements, while allowing for future expansion to other modules as needed. These modules are characterized in two categories: the Property Tax Engine and Productivity Tools. Each module within these two functional groups can individually provide tremendous power; but, when combined, the strength and value of the system is maximized.

Property Tax Engine

The Property Tax engine is powered by Oracle® which has been the underlying database foundation since Tyler | CLT introduced its original version of IAS in 1989. The associated modules running on this engine in iasWorld make up the underlying intelligence of the system. The Property Tax Engine modules include:

Administrative	Valuation	Tax
AA (Required Module) Inquiry & Appeals Tracking Conveyance Animal Registration* Landisc™	CAMA Personal Property Manufactured Homes* Natural Resources*	Tax Extension* Tax Billing & Collection Delinquent Tax Apportionment & Settlement* Financial Accounting* Estate Tax* Cashiering/Revenue Collection*

*Not included with this agreement.

More detailed information on each of these modules is contained in the following section entitled "Property Tax Engine."

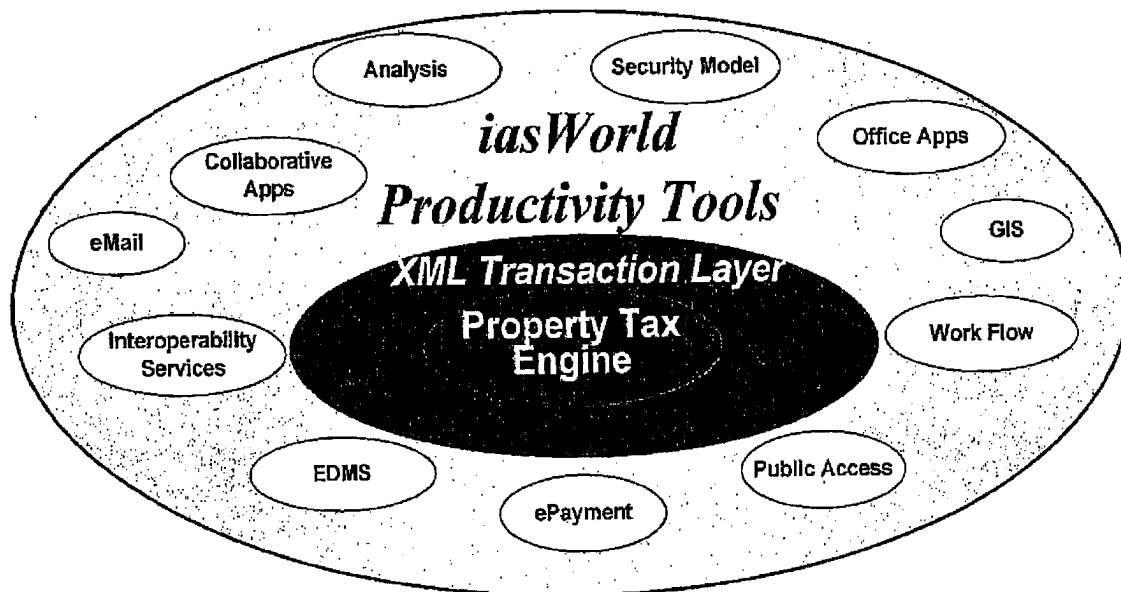
Application Functionality/Productivity Tools

The iasWorld application functionality is built upon the core Property Tax Engine using state-of-the-art technology. The browser-based design sets this product suite apart from any other in the market, fully addressing the enterprise needs of the modern assessment and tax agency. iasWorld provides improved presentation, maintenance and analysis for property tax administration through the following modules:

- System Framework (iEnable)
- Configurable, Work Flow Enable Data Maintenance (iMaintain)
- Spatially Enabled Assessment Analysis (iAnalyze)
- Public Access (iCare)
- Generic Electronic Document Management System Interface (iDoc)
- Messaging Framework to Manage Customer Correspondence (iRespond)
- Mobile Solutions, Take iasWorld into the Field (iField) *Not included with this agreement.
- Electronic Payment (iPay) *Not included with this agreement.

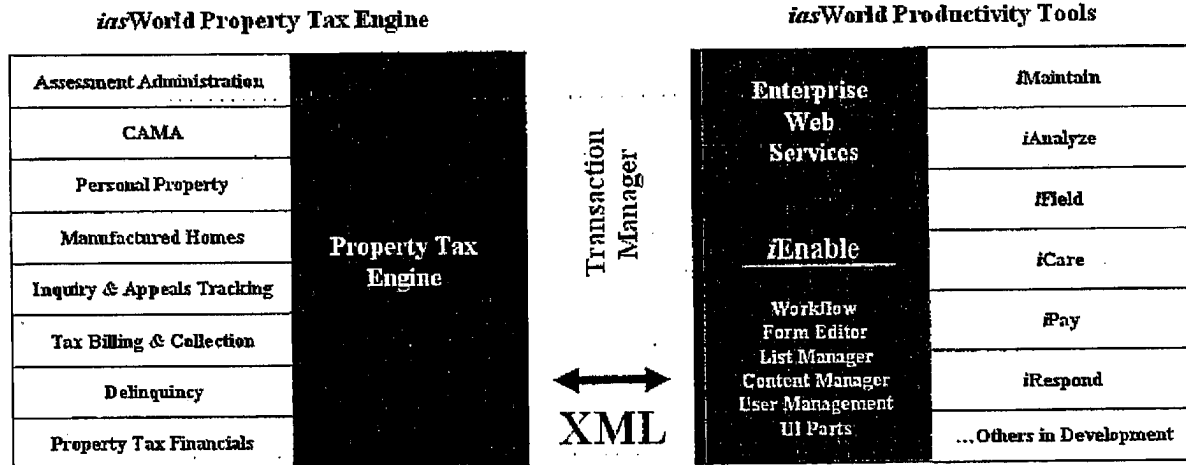
iasWorld Application Functionality provides solutions for the enterprise built on modern internet, spatial, workflow, and collaborative technologies. All iasWorld Application Functionality modules serve user interface screens in a standard web browser (Internet Explorer 6.0). In this environment, the availability of applications, functions and data elements are controlled through User Roles defined for classes of users. This allows certain functional and data subsets to be configured on a user class basis.

iasWorld Application Functionality delivers enterprise oriented solutions via an advanced n-tier web-enabled framework, application customization tools and specialized vertical application modules. This functionality allows customers to configure and optimize their workflows by customizing web forms and the associated work transactions.



Leverages iasWorld Property Tax Engine

iasWorld Application Functionality is a suite of business process oriented functionality which leverages Tyler | CLT's industry proven Property Tax Engine. Business process driven transactions are managed via a sophisticated XML based transaction layer.



Microsoft .Net Architecture

iasWorld is based on an n-tier model built on the Microsoft .Net architecture. The data marshalling between tiers is via XML and presentation is managed, in general, via XSL. Systems integration is facilitated through the provisioning of web services via iEnable framework components.

Introduction

This document is a Baseline Description of the iasWorld solution's Property Tax Engine. The following pages will provide some background on how the Property Tax Engine maintains data associated with property assessment and taxation. iasWorld's Property Tax Engine is a fully integrated computer system that contains seven core modules: Computer Assisted Mass Appraisal (CAMA), Assessment Administration (AA), Personal Property (PP), Tax Billing and Collection (TBC), Inquiry & Appeals Tracking (I&AT), Delinquent Tax (DQ), and Manufactured Homes (MH). Each of these modules can incorporate sub-modules that will assist your Jurisdiction in proper data maintenance. The seven main modules are discussed in this document.

The sections in this document include:

- System Overview - This is a brief description of the system and each module.
- System Architecture - This section describes what type of database the system is built upon and how that database is used to calculate data.
- iasWorld Property Tax Engine Modules - This section describes how the seven main modules are used in the overall property assessment and taxation process. Each section also contains brief descriptions of the major reports associated with each module.

The face of property appraisal for the purpose of taxation has changed over the years and Tyler | CLT has changed with the times. Since 1939, Tyler | CLT has been involved in property appraisals throughout the United States and Canada. What started out as a property appraisal firm has grown to become a leader in the computer technology associated with property tax administration.

As more housing developments pop up each year, and taxation laws change, it is hard to find software that can keep up with local Jurisdiction needs.

Originally developed in 1989 as IAS, the latest release iasWorld, has evolved into the most complete property tax administration software package available to the local governments in the United States and Canada. iasWorld's Property Tax Engine has the ability to support the following Property Classes and Property Tax functions:

Property Class (Type)

- Residential
- Agricultural
- Commercial
- Industrial
- Natural Resources
- Tangible Personal Property
- Motor Vehicles
- Manufactured Homes

Property Tax Function

- Assessment Administration
- Computer Assisted Mass Appraisal
- Tax Billing & Collection
- Delinquent Taxes
- Inquiry & Appeals Tracking
- Tax Extension
- Conveyance
- Estate Tax

iasWorld's Property Tax Engine Can Adapt to Law Changes

In 2000, a Western state passed a law that limited the amount an assessed value could increase in a year for residential use parcels (including commercial buildings such as apartment complexes). This meant that the Property Tax Engine client had to implement a major change to its assessment processing within a few months. The law, like most property tax laws, was complex in the details of how the rules were applied. Jean Hostetler, a Tyler | CLT business analyst, read the materials provided by the client and presented two options for implementation using the baseline Property Tax Engine product. After a discussion, the client chose one. Changes were made to the Property Tax Engine parameters for the 2001 tax year (the old rules remained in place for earlier years). Two county employees did the actual implementation within a week. No programming changes were required. This is just one example of the flexibility of iasWorld's Property Tax Engine.

How does iasWorld work in the everyday processing of data associated with property appraisal? What valuation approaches are supported by iasWorld? Does it keep a history of the parcel? Can it handle personal property valuation? How are tax bills handled? This document will answer these and other questions.

System Overview

iasWorld's Property Tax Engine is a software solution designed to meet the needs of the property tax function of local and state governments. It is modular in design and is built upon the ORACLE® relational database platform.

The Property Tax Engine is organized in the modules shown below:

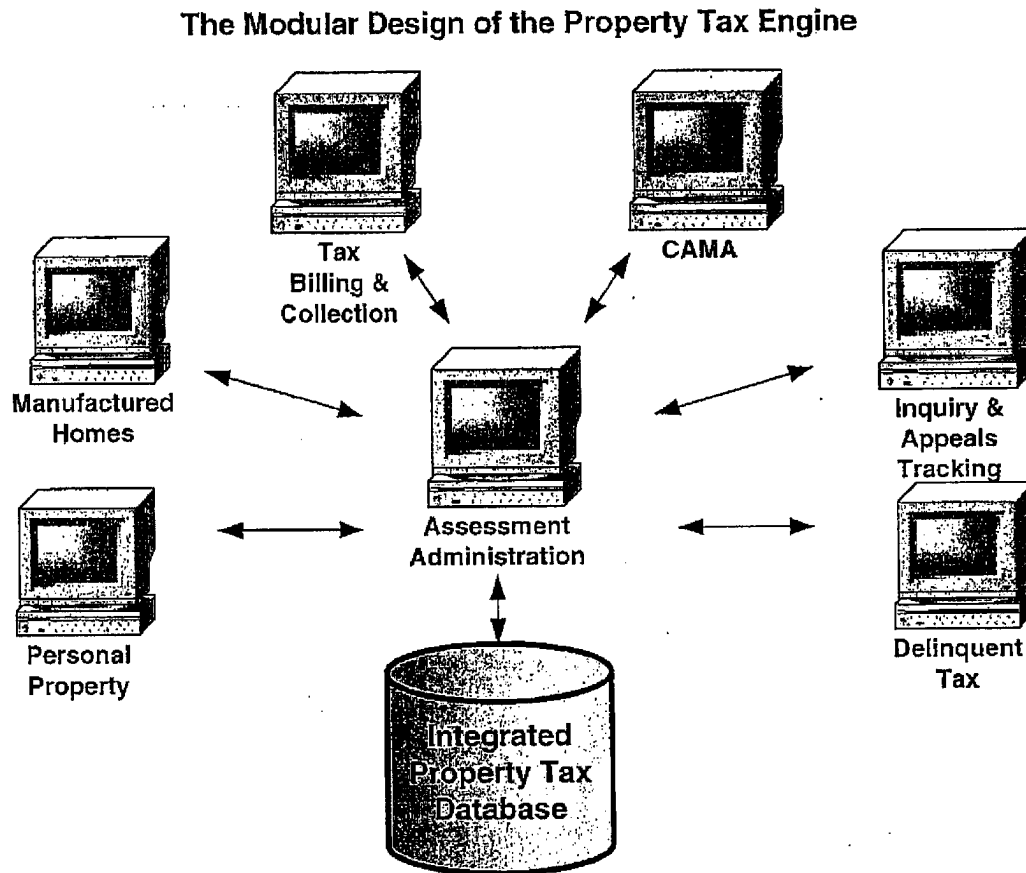


Figure 1. Property Tax Engine Structure

All modules are tightly integrated through the common Oracle relational database and have been developed using Oracle Developer 2000® tools. The user has the ability to easily access all data elements within the application database via various screens or report writing capabilities. The application has a complete Graphic User Interface through the use of iasWorld's Productivity Tools modules. The online menus and drop down menus can be customized per site to meet the Jurisdiction's terminology and office procedures. The Oracle database also has the ability to accommodate very large volume database and user requests. The following is a brief description of the modules and their capabilities.

Computer Assisted Mass Appraisal (CAMA)

This portion of the system maintains a database of property characteristics from which appraised value estimates are developed. It supports the three approaches to value: cost, sales comparison (regression and comparable sales) and income, using valuation tables and algorithms which offer the appraiser flexibility and ease of use. CAMA supports classification of properties, land and improvements, for purposes of determining the assessed values used in calculating taxes. CAMA provides a variety of reports required for reviewing individual properties and assessing the performance of the valuation and review efforts.

Within CAMA is a Classified Use Valuation subsystem. Land is appraised on the basis of its fair market value and classified use. This subsystem provides the mechanism for applying use value tables or crop, age, or income use values and tracking both market and use value on each parcel.

Personal Property

The Personal Property valuation module interfaces with other Property Tax Engine modules by sharing Assessment Administration (AA) account records, but it can also function as a stand-alone system. In addition to the AA information, Personal Property facilitates the receipt and processing of property returns from taxpayers, the computation of an assessed value, and, in case of failure to report, a mechanism for forced valuation of the property. The Personal Property module also provides auditing features to assist users in verifying the reasonableness of a return.

Assessment Administration

The Assessment Administration module maintains the ownership, mailing address, legal description, property classification, and appraised and/or assessed value(s) for properties maintained in the Property Tax Engine. It may include information for Real Estate or Personal Property in addition to other types of property such as Manufactured Homes and Livestock. The module produces the assessment roll which lists each property in a jurisdiction and the total assessed, exempt, and net taxable values residing in that jurisdiction. The information residing in the Assessment Administration module is the primary source of value information used to extend taxes in the Tax Billing and Collection module of iasWorld's Property Tax Engine.

Tax Billing & Collection

The Tax Billing and Collection module performs the primary functions of extending, maintaining, collecting and distributing property taxes. The module extends taxes through the use of values maintained in the Assessment Administration module and jurisdiction rates maintained in the Tax Billing & Collection module. In this module, taxes may be paid in real-time through a Tax Billing & Collection form or by setting up an interface for a separate cashiering application. In addition, tax payments made through mortgage companies, lock boxes, or other forms of mass payment entities can be processed using batch payment transaction applications in the module.

The distribution of collected property tax funds to individual jurisdictions is a major function of the Tax Billing and Collection module. This process allows for the interface of fund distribution to separate financial applications for general ledger activities.

Inquiry & Appeals Tracking

The Inquiry & Appeals Tracking module tracks the scheduling and disposition of properties being appealed. The hearing process can be defined by Jurisdiction to support multiple levels of appeal. The Inquiry & Appeals Tracking module allows the user to define the hearing process for a particular Jurisdiction.

Delinquent Tax

The Delinquent Tax module is used to maintain delinquent property tax accounts. The module tracks and maintains functions such as payment processes, calculation of interest, bankruptcy, and foreclosure.

Manufactured Homes *Not included with this agreement.

The Manufactured Homes module allows the Jurisdiction to maintain and track manufactured homes valued as either Real Property or Personal Property. The Manufactured Homes module allows maintenance of data, including the Parcel ID of the associated land, make, model, serial number, and other identifying and descriptive data.

Integrated Financials *Not included with this agreement.

iasWorld Financials is an automated General Ledger and Accounts Payable system that is integrated with the Property Tax Engine's Tax Billing and Collections module.

System Architecture

The essential points of the Property Tax Engine software architecture are as follows:

Programming Languages

- Oracle RDBMS
- Developer 2000 for all forms, some reports
- SQLPlus for some reports
- PL/SQL with database engine
- COBOL

Calculations

- PL/SQL
- stored as database items
- The use of objects; e.g. dwelling valuation, in which the dwelling is composed of additions plus other sums. If there is a change in an addition, the dwelling value changes accordingly.

Data Organization

iasWorld is a multi-year and multi-cycle system. iasWorld has the capability to store an unlimited number of tax years and it can apply different valuation and taxation rules for each year. The capability is also there for the Property Tax Engine to support an unlimited number of versions of the data within a tax year. This feature provides for a complete audit trail of user-maintained data.

Future Growth and Scalability

iasWorld is well positioned for future system growth and functional scalability. iasWorld started as a Tax Billing and Collection system for the State of Ohio. Since that time, functionality has been added to include Computer Assisted Mass Appraisal, Personal Property Administration and Valuation, Manufactured Homes, Natural Resources Valuation, and Inquiry & Appeals Tracking. Enhancements in the flexibility of the Property Tax Engine have increased such that it is currently installed in over twenty states and one Canadian Province.

Oracle is well known for its technical capabilities and the continuous improvement and updating of its product offerings. As Oracle makes advances in technology, they are incorporated into the iasWorld architectural scheme when beneficial to the product. The Oracle database engine is known for its scalability with respect to database size and transaction volume handling, so as Jurisdiction needs for data storage and transaction volume grow, the scalability is available.

One particular aspect of the Oracle 9i database platform that also relates to scalability is the near linear performance improvement that can be achieved by additional servers available to the application.

Recommended Tools

The tool we always recommend with iasWorld's Property Tax Engine is Oracle's Discoverer Product. It is a user-friendly ad hoc reporting tool. Other than that, the functionality of iasWorld is self-contained. That said, there is nothing to preclude the use of third party products as long as they are capable of querying the database.

Structure

The Property Tax Engine is designed as an object relational database. The relational description means that the data is stored in tables in a relational database. The object portion means that the business rules relating to the tables are also stored in the database.

There are two definitions of object. An object is an element of the system that is the combination of data and business rules. These objects map to the things a user of the system sees and does. Objects can also combine and nest together to produce the complete system. Thus, a dwelling may be an object. A parcel is also an object that is the combination of objects including the dwelling, land, etc.

The second definition for object is the Oracle term for items in the database. These are various types defined by the Oracle architecture, which can be divided into objects that contain the data and those that contain the rules.

Objects Containing Data

The type of object that is a combination of data and business rules contains or provides a way of accessing the data.

Tables

Tables contain all the actual data. They are defined as a group of columns. Columns are sometimes called fields or data items. A row is one set of columns. The whole table is a set of rows. Within the Property Tax Engine the tables can be broken into five types:

- **Data Tables**-Data tables contain actual data. These include descriptions and values. Most data tables are tied to a parcel. This is the data the system holds and manipulates. New parcels, dwellings, or whatever may be removed or added. A new tax year may require freezing the old data in time. New rates may require new values.
- **Rate Tables**-Rate tables contain factors that are used to compute values. These change as conditions require: a revaluation or tax calculation or other change in computed results.
- **Parameter Tables**-Parameter tables define the business rules. These define the definition of codes in a table, the meaning of a field, the method of calculation, the rules for calculation, edits of the data, and other things which describe how the system should work.
- **System Tables**-System tables are used by the system to track and do its work. These are usually not changed directly by users. The contents are changed by the system as it processes. These contain data such as error logs, processing status, and system version information.
- **Temporary Tables**-Temporary tables are used by processes - usually reports - to hold information compiled by the process. They usually are used to improve performance.

Views

Views are an alternate method of looking at tables. They are actually stored as SQL statements but are accessed like tables. They provide an easier or more efficient way of accessing part of a table or a combination of tables.

Synonyms

Synonyms are alternate names for a table or view.

Snapshots

Snapshots are copies of a table or view that are stored as a table. They may be created so that data from other databases appears as part of the user's database. They may also be built from complex views to improve performance. They need to be refreshed as the data in the tables is changed. Snapshots reference changes.

Indexes

Indexes are built to improve performance in reading data from a table. An SQL statement will provide the same results whether an index exists or not. When an index exists on some columns in the database, Oracle can use the index to only look at some of the rows in the table to see which ones meet the requested conditions. Without an index, Oracle has to read and examine every row. For some queries, an index can produce a huge improvement in performance.

Indexes are also used to edit rows for uniqueness. This helps maintain database integrity. Indexes used for this are defined as UNIQUE. In this sense, they are used to enforce business rules. The selection of indexes in IAS is based on our knowledge of the relationships and business rules for the tables.

Objects Containing Rules

Most objects, which define the rules in the Property Tax Engine, contain program code. This code is written in SQL and Oracle's programming language, PL/SQL. The code reads data and processes it, often to write other data.

Functions

Functions are program elements that are called, with or without input parameters, and return a single value. They are not used to change any data in the database directly. One characteristic is that they can be called from an SQL statement.

Procedures

Procedures are program elements that are called, with or without input parameters, to perform some logic. They may return one or more values as output parameters. They may also update the database.

They must be executed from a PL/SQL block or from SQL*PLUS with an EXECUTE statement. Some procedures are used to maintain the database.

Packages

Packages are bundled groups of functions and procedures. Oracle executes code within packages more efficiently than functions and procedures compiled outside packages. It is also an easier way to manage a large number of those objects. The current release has almost 200,000 lines of PL/SQL code in packages.

Some Property Tax Engine packages are used to perform global functions, such as common calculation functions, error processing, and edit processes. Other packages and processes such as batch jobs and forms use these.

External programs such as forms (screens) use other packages. These handle data manipulation, field edits, pulldown logic, interfaces for the databases for displays, etc. Others perform calculations and other functions within modules. These process the individual business rules for modules.

Others manage processes that are performed across modules. These include functions such as automatic parcel id assignment, parcel locking, copying parcel data, etc.

Packages have two parts. The package header defines the functions, procedures, and their parameters. The body contains the program code.

Triggers

Triggers are routines called when an event happens in the database. The event is usually the update or insert of a row. They update the maintenance and timestamp information. Triggers are used to version tables. They also may edit the data, call calculations, synchronize the data with other tables, or update fields.

Sequences

Sequences are called to produce the next number in a series. They produce numbers and keys for a variety of functions, such as sales history (the salekey), automatic parcel id generation, and payments.

Property Tax Engine Objects outside the Database

While the data and rules are stored in the database, there is a need to access this information. This is usually done through software such as screens and reports. These are stored in files outside the database to create the client portion of the system.

iasWorld uses other files for the client part of the system. SQL code (*.sql) is used to create the objects, run reports, and do a variety of other tasks. Some reports are written in Oracle Reports (*.rdf, *.rep). Others are COBOL or C and the executable (*.exe) is provided. Forms (*.fmx) also require libraries (*.plx) of common code, icons (*.ico), logos (*.tif), and parameter (*.ini) files.

These programs are stored on a forms and/or reports server. They make calls to the database or interact with each other. The presentation of data from the Property Tax Engine is the primary purpose of these items. The actual storage and processing of data occurs within the database.

Dependencies

Oracle maintains a list of dependencies between objects. This list is consulted whenever an object is recompiled in the database. This insures that as objects are changed related objects remain synchronized. Any problems that may occur will be identified before they impact work done on the system.

Relationships between Tables

The primary key of most tables is defined by a unique index. In iasWorld, these usually are named as the table name followed by _u. The primary key is also normally the first column on the table. Commonly used foreign keys are given another index.

The overall system design is based upon the idea that the application revolves around a set of objects referred to as parcels. These objects may be grouped together in various ways to form groups.

Individual parcels are assembled from other objects. Different classes of parcels are composed of different types of objects. For example, the data describing dwellings is different from that describing personal property.

A given class of objects may be used by one or more parcel types. Some objects are composed of sub-objects, which may also be composed of other sub-objects, etc.

Data Defined by Tables

Allowable Values

The Property Tax Engine has tables to assign allowable values. These determine the allowed codes and what they mean. The System Administrator can define the values allowed in the table and their meaning.

Edits

A table allows the creation of edits on fields that have been coded for them. The user can define an error message. Using a negative value for the results sets a hard edit; a positive number makes it a warning. Range edits and special cross edits can be entered.

Processing Options

The Property Tax Engine provides alternative methods of valuation for many types of property. For example, residential valuation can compute each element of a property to include the grade and

depreciation factors or compute each part as the base value and apply the grade and depreciation factors to the total.

Commercial valuation can use the Tyler | CLT method or Marshal & Swift® (MSW).

Setting the appropriate flag produces a full audit trail of all changes. Setting the flag keeps versions for all changes when appropriate while not setting it during test cycles such as cost table calibration prevents expanding the database.

User-Defined Fields/Calculations

Many of the fields commonly used for property tax processing are built into the system. In some cases, there is information that may be desired by some sites and not others. Sometimes just the label of a screen needs to be changed to match local terminology.

In some cases, these definitions are coded into the processing options. At other times, they are coded in a table.

The iasWorld Property Tax Engine contains a large number of user-defined fields. These are often labeled as USER1, USER2, etc., up to the number that is defined for the given table.

User-defined fields can also be defined to affect the calculation of a value. Placing a predefined calculation function name in the Function field does this.

Summary

It has been discussed how the object structure is used to create the functionality of the system. Users can define data and calculations to meet their requirements while sharing the same program code with other users with different requirements. As legislative and other desired changes occur they can often be implemented without requiring the programs to be changed. Additional functionality can usually be added without changing the way things work for users who do not want to use it.

PROPERTY TAX ENGINE MODULES

This section describes how the seven core modules are used in the overall property appraisal process. Reading this section will give you an idea of how each module can handle everyday data entry processes. The following modules are discussed in this section:

The main modules

- Computer Assisted Mass Appraisal
- Personal Property
- Assessment Administration
- Tax Billing and Collection
- Inquiry & Appeals Tracking
- Delinquent Tax
- Manufactured Homes ***Not included with this agreement.**
- Property Tax Financials ***Not included with this agreement.**
- Cashiering ***Not included with this agreement.**

Each module description contains the purpose for the module, an overview of its functions, brief descriptions of how it manages data, and major reports associated with each module.

Computer Assisted Mass Appraisal (CAMA) Module

Purpose

The CAMA module is a complete and accurate tool for the appraiser to set equitable property values. It maintains a database of property characteristics from which appraised value estimates are developed. It includes the necessary valuation tables and algorithms to support the three approaches to value: cost, sales comparison (regression and comparable sales) and income. CAMA permits classification of properties, including both land and improvements, for purposes of determining the assessed values used in calculating taxes. It includes a range of reports required for reviewing individual properties and assessing the performance of the valuation and review efforts.

CAMA General Description

Equitable Market Values

The system supports the three approaches to value (cost, income, and sales comparison) necessary to establish fair, uniform, and equitable market values for various types of properties required by state statute. When properly applied to a database of up-to-date property characteristics, and when subjected to review by experienced appraisers and/or valuation analysts, the CAMA system will meet the objectives of generating equitable market values. The term sales comparison is used here in place of market to emphasize that when properly applied, all three methods are designed to estimate the fair market value of a property.

Land Valuation

Land in the Property Tax Engine is valued on a market basis using one of five measurements: front foot, square foot, acreage, gross, or site value. The front foot method provides for a depth table adjustment. All methods provide for the application of influence factors to adjust the base value of parcels whose land is atypical of the neighborhood.

Land valuation is an integral part of producing the property value under the cost approach, i.e., Land + Building = Parcel Value. It is assumed that the land value allocation developed above will apply to all valuation of the property (market and income).

The CAMA module provides for Computer Assisted Land Pricing (CALP) that allows the appraiser to set up a series of land models for lots, square foot, and acreage entries to cover the range of land prices in the Jurisdiction. The appraiser then specifies, on a neighborhood basis, the applicable land model for parcels in that neighborhood. The system automatically applies the unit prices from the model to each parcel, making the adjustment for excess size. Other land factors affect value, and so model rates can be adjusted by zoning, street, location, and utilities. The system will allow multiple land lines to be associated with a single property.

CALP is applied to both residential and commercial properties. The land values it provides can be adjusted by applying influence factors or re-specifying the land breakdown, as appropriate, or the land values can be overridden by inputting the desired unit price.

Land models entered into CALP can be developed in several ways in the Property Tax Engine. The most frequent approach is to execute a series of report templates that provide vacant or abstracted land values (land residuals) from sales. These can be expressed on per front foot, per square foot, per acre or site value basis. They can be sorted by neighborhood and other user-specified criteria. Statistics (average, low, and high) can be obtained from these reports and used in establishing benchmark models.

Classified Use Valuation

The CAMA module also provides for a Classified Use Valuation subsystem. Land is appraised based on both its fair market value and its classified use. This subsystem provides the mechanism for applying use value tables, such as crop, age, or income use values. The system can then track both market and use value on each parcel. Land valuation is based on use (pasture, tillable, etc.) and soil (actual soil or soil class) or any four user-defined classifications. User-definable rate tables are then set up for each classification as appropriate. If the land is used for farming, different yield rates can be applied based on year planted. The Property Tax Engine allows for land line assignment of acreage by soil type. Override adjustments can be made at the line level. The system also provides for the recoupment of taxes if land is taken out of the preferential treatment program.

The Cost Approach

Cost value estimates are computed in the CAMA module using the cost methodology developed by Tyler | CLT during its sixty-year-plus history as an appraisal company. This methodology is widely accepted and forms the basis for the Illinois standard Appraisal Manual and the statewide CAMA systems in Kansas, Montana, West Virginia, Wisconsin, and Wyoming. The cost tables for each class of property are indexed to facilitate adjustments for time and location differences. Users with proper security can access the cost tables to modify unit values for individual construction components such as yard and miscellaneous improvements.

The cost tables used in applying these cost models are standard Tyler | CLT base tables. These tables can be tailored to match the cost level in the Jurisdiction by conducting a cost index study that determines the typical (mean, median) ratio between actual new construction costs and the estimated costs established by applying the base tables. Sometimes changes in building practices or local conditions will require an adjustment to the rate or value for one or more of the base cost components. Occasionally, new structures, features, or components will be encountered which require additions of new codes and prices to the tables. The design of both the residential and commercial cost algorithms readily supports these types of user modifications.

Residential Cost Valuation

Residential cost valuation uses a base price for a standard structure, with additions and subtractions for variations from that structure. The standard structure is a 1200 square foot 1-story frame ranch with no attic, central heat, and plumbing fixtures. Adjustments are made for differences in heating, plumbing, basement, attic, finished basement, rec room area, unfinished area, fireplaces, and miscellaneous other features.

The cost of additions are calculated at a dollar/square foot rate, with the ability to make size adjustments using a constant and a square root term. Additions may be graded and depreciated separately from the main dwelling.

The CAMA module provides the ability to make adjustments using factors based on neighborhoods and class codes of improvements.

Commercial Cost Valuation

Two cost methods are available for commercial structures, Tyler | CLT and Marshall & Swift. Only one method may be used for a given tax year.

The commercial structure is viewed, for pricing purposes, as consisting of sections and levels, each of which can be depreciated separately. Each level can have its own story height, construction type, plumbing, heat, etc., on which to base its valuation. To this end, the computed RCN, percent good, and

RCNLD are stored for each level. Other feature values are added into the section line on which they are located, so that they are depreciated in accordance with the physical condition and functional utility rating of that line.

There are some differences between the data collected for the Tyler | CLT cost approach and the data collected for Marshall & Swift. In both methods a base square foot rate is established based upon structural components, with adjustments for certain conditions. The Tyler | CLT method tends to build a base rate from a "lowest common denominator" and then make adjustments for any variations in exterior and interior factors. Marshall & Swift has separate rate tables for different quality levels of the same structure type, and makes fewer adjustments to the base rate. Marshall & Swift includes time and location multipliers. Both methods produce an RCN, which is then depreciated to produce the building RCNLD. Both methods support all appropriate rates depending on building use and type. Both methods calculate a perimeter area ratio using exterior wall sizes applied to wall height. Story adjustments are made where appropriate.

Condominiums

The Condo Master screen allows information for the individual condominium complexes to be stored. Each unit type within the complex is identified, as well as the areas, rates, and any value adjustments. The system offers numerous variables such as location, floor, view, and amenities to value condominiums. Final values will optionally include a percentage of ownership of land or building from the condominium master.

Property Sketch

Sketches are drawn with a point and click utility (Mouse Sketch) integrated into the iasWorld screens. The sketch is stored in a vector format. These vectors are stored as character data, e.g., U25R40D30L20U5L20 (up 25 feet, right 40 feet, down 30 feet, left 20 feet, up 5 feet, left 20 feet), and can be entered and maintained manually as well as through Mouse Sketch. The vectors are edited for closure and areas computed. If the vectors do not close, the system will display the line that needs to be reviewed for errors. Simple rectangular additions may be described by providing the starting direction and second dimension, e.g., R20x10, which (assuming a clockwise direction) would be translated R20D10L20U10. Mouse Sketch provides the ability to maintain a set of sketch vectors previously entered to define the perimeter of the main dwelling and its additions. A computer-printable sketch can be produced with area computations and dimensions.

The areas calculated from the vector sketch are written to the file and used for subsequent valuation processing. The capability to sketch angles other than 90° and the ability to sketch arcs and circles is also provided. The user only enters manually calculated areas if a structure is so irregular that it cannot be sketched. For commercial structures, both areas and perimeters are computed from the sketch vectors but do not update the areas/perimeters used for determining value—this allows the appraiser latitude in sectioning and applying adjustments for common walls.

A graphics sketch display uses the graphics mode of PC workstations to display the line work, dimensions, and labels of the perimeter sketch. This feature also tiles the different areas of the sketch with different colors or shaded patterns. The graphic sketch allows isolation by floor level and zooms in and out for varying scales.

Sub-area codes are displayed to the right of the sketch with the calculated square footage amounts. An alphabetical code is tied to each individual sub-area and displayed within the sketch to show the location.

In the CAMA module there is no limit to the number of additions that can be vectored and calculated. Any addition can be vectored or entered as a manually computed area regardless of its order in the sequence of additions. Individual addition vectors can be maintained without the need to re-key the

whole vector. In sketching structures, miscellaneous buildings can be located in relation to the main structure without being drawn, using the Mark command.

Upon original conversion, iasWorld's Property Tax Engine will batch load the building sketches and vectors into the database.

Other Building and Yard Improvements

Miscellaneous (OBY) commercial and residential items are supported in the Property Tax Engine. Valuation is table-driven, allowing rate flexibility using size adjustments and a grading system. The Property Tax Engine also allows for other modifications, including obsolescence and override capability.

Sales Comparison and Multiple Regression Analysis

The market sub-module produces market value estimates using MRA/comparable sales. It can extract sold properties from the master file and build a sales history file for sales analysis purposes. The flexible design of the market sub-module allows users to:

- Process complete multiple regression analysis modeling within IAS.
- Import coefficients from a stand-alone modeling program.
- Enter coefficients for sales adjustment.
- Calculate value based solely on comparable sales.

Regression Analysis

The system features constrained multiple regression analysis (MRA) modeling, designed for the appraiser's ease of use. Constrained regression modeling permits the appraiser to specify the property factors to be considered in each model and an acceptable range of values on the coefficient of each factor. For example, due to the mix of sales available and the property factors considered for a particular model, a factor such as detached garage area comes into the unconstrained model with a coefficient of \$4.53. The appraiser/ modeler wants a coefficient between \$8.00 and \$10.00 per square foot and, by specifying this as a constraint, will force the factor into the model at \$8.00. Constrained regression automatically adjusts the coefficients of the other factors to obtain the best least squares fit.

Constrained regression is especially helpful in market areas where lack of sales data makes it impossible to develop a complete market model. Appraisal knowledge combines with actual sales to provide better models.

The system allows the user to create a number of models within the Jurisdiction, each applying to a neighborhood or group of neighborhoods. Within a neighborhood, further subsets may be created based on a user-defined data item.

The system supports up to 99 candidate variables for use in regression and market valuation. It does not place a limit on the number of observations (sales) in a modeling run. Up to 59 of the variables can be specified as candidate variables for a specific regression model. An unlimited number of variables version is also available, but is not usually practical due to performance issues. The market valuation subsystem allows the creation of new variables for valuation. These can be based on algebraic, exponential, logarithmic, and trigonometric functions among others.

The constraint feature allows the user to control the inclusion or exclusion of specific variables. The data extraction sub-module includes features for the linearization of assigning weights to coded variables in the database. The Edit and Expansion sub-module allows the user to create transgenerated variables using arithmetic or algebraic terms. The Edit and Expansion module also allows the user to expand classification or discrete variables into binary (yes/no) variables. They are then assigned individual

coefficients, aggregated into groups, or weighted into a linearized value, for use in modeling and/or comparable selection.

The system generates numerous performance statistics.

The software, through its transgeneration capability, supports log-log or linear-log models.

Comparable sales is the primary factor in determining the sales comparison value, and hence primary emphasis in modeling has been placed on calibrating models that provide reasonable adjustments to be applied in adjusting comparables.

However, the modeling capabilities are quite powerful and can be used in analyzing other property characteristics and value indicators.

Comparable Sales

The comparable sales sub-module uses a Minkowski metric to determine comparability of sales based on user-assigned Selection weights. The module relies on regression coefficients to adjust comparable sale prices to the subject property.

When creating comparable sales selection criteria, the user specifies each variable as continuous or discrete. Discrete variables apply the weight to the comparable sales price if the variable value of the sale is not identical to the subject. Weights are assigned which cause the comparability distance metric to make rational trade-offs between significant differences in various essential property characteristics.

In other words, the system searches for comparable sales within the neighborhood group. If there are not five highly comparable sales within the group, it will then search all of the sales for the subject property's cluster, a superset of all properties exhibiting similar market behavior.

The user can calculate comparables for one parcel, a group of parcels, a neighborhood or the entire file.

The user specifies the property characteristics to appear on the report and the selection weights. The adjustments are normally the MRA coefficients from the model and used to value the subject parcel.

These comparables are used in conjunction with the MRA model to generate an estimate of the market value of the subject property. This estimate can then be correlated with the cost approach on a single field review document known as a comparable sales report.

There is a series of detail market screens that allow for comparable sale review, criteria selection, and model results.

Non-Linear Methods

Other model calibration methods can be implemented. The export features of the Property Tax Engine can be used to download CAMA data to personal computers for input to PC-based modeling packages that perform feedback analysis (Adaptive Estimation Procedure), non-linear regression, etc. These models can be applied to properties and the resulting value estimation imported back into the iasWorld database.

The CAMA module of iasWorld currently supports third party statistical analysis interfaces such as SPSS.

Income Valuation

Income models for various types of income-producing property in different geographic areas (neighborhoods) are maintained in the system and applied consistently to each property with the appropriate characteristics. The potential net income streams are then capitalized to provide estimates of value in accordance with the income approach. The application of gross rent multipliers or gross income multipliers is available as part of the model approach for appropriate types of properties. Several

analytical tools including MRA are available to the user for the purposes of gross rent or gross income multiplier studies.

Statements of actual income and expenses can be used to calculate an income value using several methods, including GRM, GIM, mortgage equity, discounted cash flow, property residuals, and direct capitalization. These methods have corresponding review screens for valuation. The user chooses the most appropriate final value.

The iasWorld income approach allows the user to choose between an income model approach and the use of actual income and expense data. The income model approach uses the description of the property laid out in the collection of improvement characteristics for the cost approach, as the basis for aggregating areas and units against which income and expense models will be applied. This income model approach is a *ProForma* type approach. Use of actuals is implemented by entering income and expense detail developed from owner statements. Several calculation methods are available to compute a final income value. The appraiser compares both the modeled and actual income values and chooses the most appropriate value estimate.

The income model approach contained in the system performs valuation by income capitalization for all types of commercial properties, including apartments, hotels, motels, offices, retail, warehouses, auto service, banks, restaurants, and fast food. There are 25 pre-defined categories installed with the base system, and the user can define others.

The income model approach differs from traditional computer-assisted income valuation techniques in that it does not require income data on each property. Income models may be developed through external spreadsheet analysis of income and expense data or by utilizing computerized modeling software such as the MRA module in IAS to analyze the data. Models are developed on the basic physical characteristics collected on the standard Commercial/Industrial data collection form. Valuation results may be adjusted for exceptional properties by inputting income quality rating, expense adjustment factor by age, occupancy adjustment factor, and capitalization adjustment level. Provisions are included for excess acreage valuation.

Value Reconciliation

The CAMA Appraised Value screen is a final value screen where the user chooses which method of valuation is applied to the parcel. All three estimates (with both market comparables and regression estimate for the market approach) are written to the database. Any one of these values can be selected as the final value, or an override value can be entered for the parcel.

iasWorld allows for a last review date on the value reconciliation screen and supports re-costing and assessment posting from the value reconciliation screen.

CAMA Data Management

The CAMA module provides a complete database of property characteristics. Here is a **partial** list:

Parcel

- Neighborhood
- Map/Routing
- Location Address
- Property Use and Classification
- Zoning and Municipality
- Topography
- Utilities
- Reason for Change Codes

- Economic Condition Factor
- Exemption Percent

Land

- Size (front feet, square feet, acres, units)
- Land Code (use)
- Influence Factors
- Classified Use (soil, etc.)

Residential

- Story Height
- Style
- Construction
- Year Built, and Effective Year Built
- Basement and Attic
- Heating and Heating System
- Miscellaneous Features
- Fireplaces, Stacks, and Openings
- Additions (separately graded and depreciated)
- Grade
- Condition, Desirability, Utility (CDU)
- Physical, Functional, Economic Depreciation

Condos

- Type
- Level
- View
- Complex Name and Number
- Unit Number

Commercial

- Structure Code
- Year Built, Effective Year Built
- Construction Type
- Area by Section
- Wall Height
- Number of Stories
- Interior Condition
- Attached Other Features

Income

- Tenant Name
- Rental Income
- Other Income
- Expenses by Type

- Area
- Income and Expense Dates
- Contact Info

In addition to these maintainable fields, intermediate and final value calculations are stored in the database. There are also a number of user-defined fields available for locally significant characteristics not included in the pre-defined characteristics.

CAMA Reports

The CAMA module provides a number of pre-defined reports. These include:

Appraised/Assessed Value Listings - The system provides the ability to print appraised/assessed value listings for the Jurisdiction, sorted by parcel identification and/or map and routing number, account number, and owner's name. These listings contain, at a minimum:

- Neighborhood or Tax District
- Parcel I.D. and/or Map and Routing
- Account Number
- Number of Acres
- Class of Property
- Improvement Value
- Land Value
- Total Value
- Totals are produced by property use code within neighborhood or tax district

Valuation Report - Value Change Abstract - Assessor's Final Report - Using the value change reason codes in the system, the user can track all value changes as to amount and reason, and produce a detail report listing all value changes, the reason(s) for those changes, and the total changes by tax district and reason code within each class. This report provides the Assessor/Appraiser with the necessary information for documenting the updated value abstract and for tracking and documenting value changes that may result from Formal Appeals proceedings or subsequent Court action.

Impact Analysis - This report provides detail and summary information as to the change in value due to reassessment by property class and tax district. It can be used to evaluate the impact of the reassessment before release of new appraised values, i.e., to identify any shifts in value between classes, within neighborhood, etc.

Impact Notice - This is a taxpayer information document that presents the new appraised value to the taxpayer in light of the taxes that the taxpayer would pay on the same property prior to revaluation and after revaluation. The taxes before revaluation are calculated based on previous assessed value (adjusted for any inventory changes) and previous effective tax rate. The "impact" taxes are calculated based on the new assessed value and an "impact" tax rate calculated by assuming the same fiscal requirements (effective tax rate times tax base) as the previous year, i.e., $\text{Impact tax rate} = \frac{\text{Old Tax Base} \times \text{Old Tax Rate}}{\text{New Tax Base (excluding New Construction)}}$.

The impact notice shows the taxpayer that, even though the assessed value may have increased by a significant percentage, the taxes will not necessarily increase by this same amount. Moreover, in fact, for some properties the taxes may decline if the new assessed value shows a smaller increase in value relative to other properties.

Data Mailer – Property Description Report - A data mailer can be produced that will show selected physical characteristics of properties on the database. These can be mailed to taxpayers for verification of information or sales verification based on ownership change.

Property Review Document – The CAMA module produces a detailed field review document that lists all of the property characteristics organized by building. An expanded version of the report includes the income model approach for commercial properties. This document may be used for field audits (data verification and review), picking up new construction and alterations, or value review.

Value Change Report – This report in the CAMA module produces a standard value report that compares the prior year value to the new value and the percentage of change per parcel.

Field Work Sheet – A field work sheet can be produced that will store the needed information for the Appraisal staff to take to the field, including assessment data, permit data, ownership data, and sketch of property.

Agriculture Rate Table List – This report contains all crop or soil and use types in the table and the associated rate.

Agriculture List by Parcel – This report prints all Agriculture types per parcel along with Owner Name, Classified Use Application Number, Class, Range-Tract-Section, Appraised, and Assessed Land.

Agriculture List – This report prints totals by Agriculture Category or Tax District.

Current Classified Use Valuation List – This report prints all parcels on the Current Classified Use Valuation program. It contains Parcel ID, Application Number, Owner Name, Classification, Acreage, Appraised Values, and Mailing Address. This report may be in Owner Name, Parcel ID, or Application Number sequence.

Current Classified Use Valuation Applications – The system generates the classified use applications.

Computer-Printed Property Record Card – Property Record Cards can have been created for some Jurisdictions. These cards can be printed for individual parcels or in continuous form. In general, the computer-printed property record contains the following data:

- Parcel Identification
- Ownership
- Legal Description
- Land Description and Pricing Data
- Improvement Description and Pricing Data
- Correlation of Values
- Sketch of the improvements on the property

Spatial Analysis (iAnalyze)

The spatial analysis functionality provides a comprehensive application module for conducting a wide variety of assessment and taxation related analysis. This provides easy access to statistics commonly used in assessment analysis and modeling (e.g.: Median, COV, COD, PRD). The user can freely move between tabular, spatial (e.g.: thematic maps) and charting representations of their project datasets. The results of the analysis session can be saved as a user-defined project including the source property list and all applied criteria filters. Saved analysis sessions can be shared with other staff for review. The connection to both the GIS datasets and the iasWorld CAMA database are real-time. The following are some of the included features:

Assessment Analyst Features:

- Project Session Management
- Create Selected Record Sets
- Display, Save, Filter Lists
- Client Side Interactive GIS with VML Support
- Common valuation statistics e.g. mean, weighted mean, COD, COV, PRD
- Thematic mapping, Reports
- Graphing (e.g. histograms)

Common Assessment Statistics			
Ave Sale Value	140418	COD	21.113
Mean Ratio	0.838	Weighted COD	15.769
Weighted Mean	0.763	PRD	1.097
Geometric Mean	0.783	COV	50.555
Median Ratio	0.783	Broadened Med	0.785

Figure 2 – Standard statistics for sales ratio analysis. There are additional statistics available.

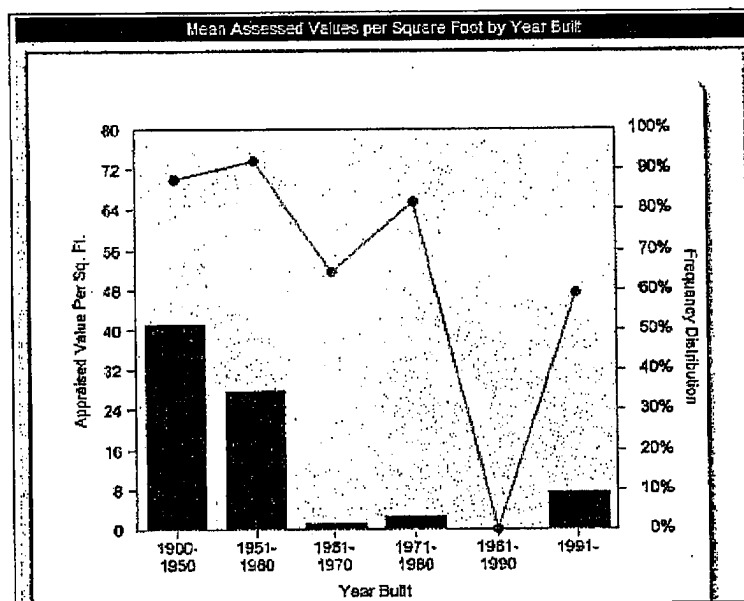


Figure 3 –Numerous charting options are available without requiring any programming. In this chart the mean appraised value per square foot is plotted against the year built. The histogram provides the relative distribution of properties by year built.

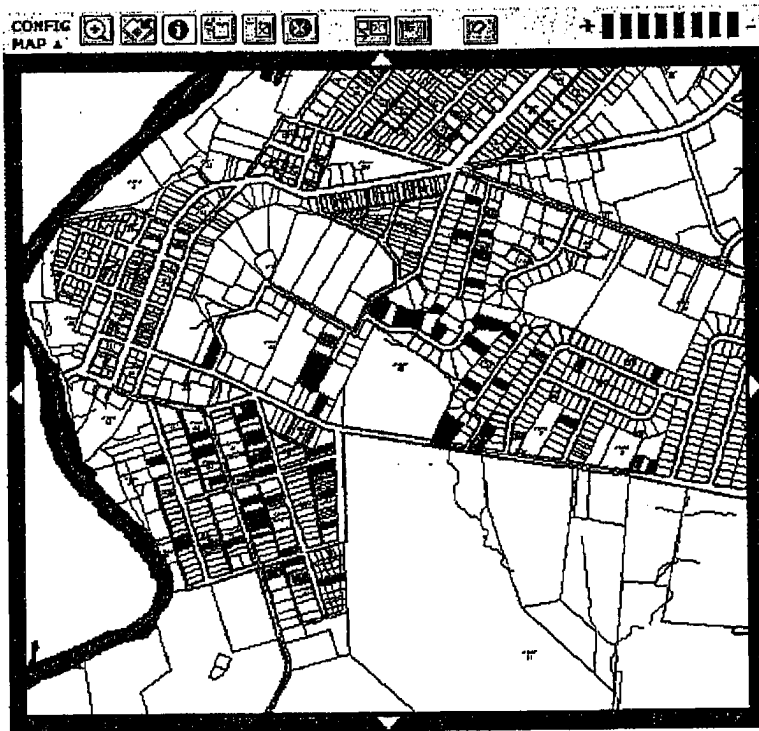


Figure 4 – Spatially Enabled Mapping. This map has been thematically rendered by sales ratio. The yellow shading represents neutral zone, properties with sales ratios close to 1.0.


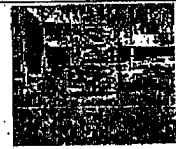


Data Items	Subject	Comparables			
					
PARID	182403A0B4	182403A0D0	182403A0D9	182403F399	
Address	6252 SHAGBARK DR	6253 SHAGBARK DR	6262 SHAGBARK DR	6077 DONNA JAY DR	
Land Value	32400	32400	30240	30240	
Building Value	96520	110600	112190	85280	
Total Value	128920	143000	142430	125520	
Sales Ratio	0.7584	0.7487	0.7913	0.7845	
Last Sale Amount	170000	181000	180000	180000	
Last Sale Date	1/10/2001	4/24/2001	2/26/2001	5/22/2001	
Neighbourhood	00311	00311	00311	00311	
Grade	C	C+	C	C+	
Year Built	1987	1986	1992	1981	
Total Rooms	8	8	8	8	
Bedrooms	4	4	4	4	
Bathrooms	2	2	3	2	
Basement	FULL	FULL	FULL	FULL	
Heating	CENTRAL A/C	CENTRAL A/C	CENTRAL A/C	CENTRAL A/C	
Building Square Feet	1853	1990	2132	1852	
Acres	0.68	0.69	0.53	0.43	
Price:	Value \$128,920	Sale \$191,000	Sale \$180,000	Sale \$160,000	
Net Adjustment:		-7.3% \$14,000	-4.7% \$8,500	5.6% \$9,000	
Adjusted Sale Price:		\$177,000	\$171,500	\$169,000	
Avg. Adj. Sale Price:	\$172,500				

Figure 5 – iasWorld Interactive Sales Comparables Worksheet. Appraiser can make adjustments by entering values in the adjust grid. Alternatively the adjustments can be based on system coefficients.

Field Work Efficiencies (iField) *Not included with this agreement.

iField provides property details – selected by assessment experts – on devices that can be easily and conveniently used to update data in the field. The data used is downloaded directly from the CAMA database, and after being updated in the field, can easily be uploaded back into iasWorld, where it is subject to validity checks and supervisor review before being added back into the CAMA database. By streamlining the steps between identifying a property that requires a field visit and scheduling the visit, and enabling data management on a mobile device, iField increases productivity and improves data integrity.

iField includes the following features:

Field Operations Management

- Define Field Visit Requests (FVRs) and Workpacks (which are used to manage collections of FVRs) to support existing workflows (residential, commercial, photo collection, new construction, new sales, appeals)
- Simplified identification of parcels that require field visits, including automated triggers
- Powerful selection tools to support work distribution, including optional routing with GIS assistance
- Create Field Visit Requests (printed, PDF or online iField data forms) with integrated PRC data, maps, sketches, and photos
- Comprehensive management features, including tracking by age, assignee, task stage and status
- Real-time wireless network integration (upload/download)

The process for selecting properties for review can be enhanced by database triggers tied to targeted events, such as building permits, assessment appeal notices or legislated bulk assessment reviews. Because iField is fully integrated with iasWorld's enhanced GIS functionality, property visits can be planned using GIS maps, or using integrated tools such as Microsoft's Route Planner. Property visits can be managed as standalone Field Visit Requests (useful for exception-related field visits), or collectively in Workpacks.

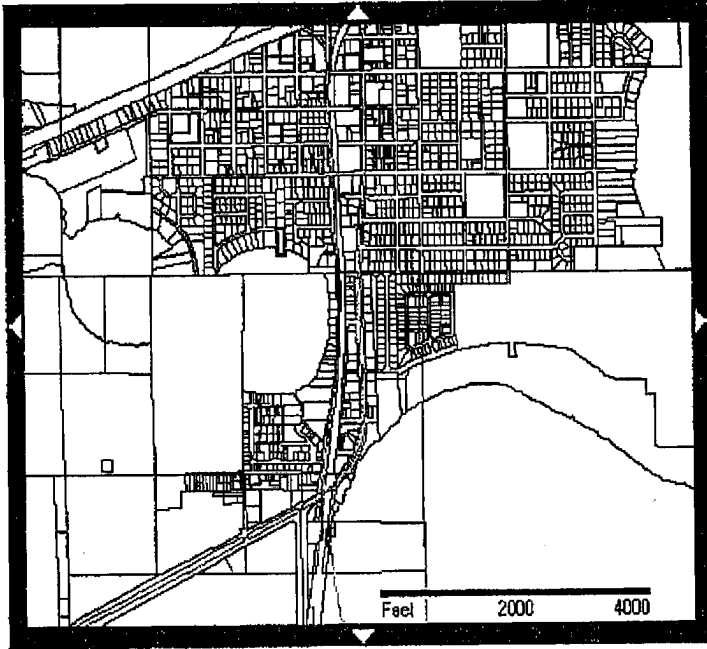


Figure 6 – Field Visit Route Design – Properties can be selected on the integrated map display, to plan efficient field visits. iasWorld can also be integrated with route planning GIS systems.

While iField's data collection forms are optimized when used online on mobile devices, they can be printed or stored as PDFs. When used on a field device, the system is designed to support the "sometimes connected" user. Where and when wireless internet access is available, field personnel can access and update the live database. In the event that wireless internet access is unavailable staff can continue updating downloaded FVR's off-line.

Handheld Device Interface (iField)

- Property Record Card (datalet format similar to iCare)
- Content Sensitive Data Entry (optimized for fast and accurate edits)
- iField and iasWorld Interface (XML/XSL work transactions)
- Vector-driven Sketch Support
- Online Connectivity – LAN or wireless (if coverage is available)
- Offline Support (local copy of data records)

Personal Property

Purpose

The Personal Property module provides for the receipt and processing of property returns from taxpayers, the computation of an assessed value, and in case of failure to report, a mechanism for forced valuation of the property. The personal property module also provides auditing features to assist users in verifying the reasonableness of a return.

Reporting forms, the categorization of personal property for valuation (and sometimes assessment factoring) purposes, and administrative functions, such as forced audits, penalties for failure to file, etc., often vary by state. Various forms can be produced and select lists produced using Oracle tools such as Oracle Discoverer®.

Personal Property General Description

The on-line Personal Property System provides for the maintenance of personal property information, tax extension, and timely reporting. The system provides the following functions:

- Unlimited history to view values and tax history information by tax year and file year
- Unlimited alternate name indexing (aka, dba, etc.)
- Unlimited alternate identification number indexing
- Unlimited location address indexing
- Optional Auto-assigning of PP Account number with the ability to customize the assignment of account numbers by installation site
- Unlimited ownership and multiple ownership information
- Inquiry search screen for real or personal property records using user-defined codes that can be set up as State use codes or any other defined codes
- Account via OCR-A or bar coded documents
- Entry of account numbers for mass filing of non-filer entry using OCR-A or bar coded account numbers
- Reconciliation status summary screen to reflect preliminary and changed values and exemptions for any account/parcel during reconciliation
- Status of the account, review date, additional status flags, tax codes, and neighborhood codes
- Entry of new account records and database changes on a current year, next year, or back assessment record
- Unlimited access to add, insert, and/or modify comment maintenance on a detailed line basis
- On-demand or in batch reporting for a single account or entire file or sections of the file
- Bar Code scan of the Account number on the Tax Return
- Index search screen to find a personal property account by account number, location address, owner name, or alternate name, tax district, business name, NAICS code, etc.
- Integration from the iasWorld Real Property System to notify a personal property account of key activities, such as the removal of an exemption or sale of real property

In addition, the Personal Property system provides the following interfaces with the iasWorld Property Tax Engine base module:

- Exemption Sub-System
- Common Owner Table
- Mortgage Code/Mailing Number Table
- Alternate Names Table
- Alternate Identification Numbers Table
- Alternate Addresses Table
- User-Defined Field Table
- Parcel Comment Table

Account Maintenance

The user can create an account and build account information pertinent to the business, such as filing date, business start date, federal ID number, business description, business type, industry code, social security number, fiscal dates, file by date, extension date, etc. Fifty user-defined fields available can be customized for the terminology of each site. There are also user-defined table codes set up for the computation of a value.

Value Maintenance

The Personal Property Value Maintenance screen allows the authorized user to enter detailed filings from tax returns. The detailed valuation screen supports the entry of appraisal information used in the valuation process, displaying all cost information and values associated with individual property records.

The subsystem incorporates classes of detailed records that conform to State guidelines. The user can enter current and delinquent (back assessment) detail asset information that includes original cost value, taxpayer value, assessed value, year acquired, number of units, etc. The Personal Property Value Maintenance screen will calculate an appraised value amount using the rates/factors associated with the line item entered.

The user can enter detailed personal property line items for regular items, manufactured homes entries, and CAMA dwellings/detail line items. A single line or a multi line entry is available. The multi line entry option only displays required entry items to speed up entry of detail assets.

Leased Information

Leased equipment is entered as owned or leased equipment, thereby building a cross-reference file. Values can be assessed for special conditions. Users can maintain lease information, such as the lease name, lease account number, and lease assets by lessee and lessor. They also have the ability to maintain lease information for an account and cross-reference accounts for future value assessment/auditing. In addition to entry availability, the users can access a lease cross-reference inquiry screen for Lessee to Lessor relationship and Lessor to Lessee relationship for the user to view lessee/lessor information.

OBV Interface

CAMA OBV entries, total building value, selective dwelling values, additions, and other features can be pulled into the Personal Property system for residential and commercial properties. CAMA maintenance is accomplished before selecting CAMA entries for Personal Property assessment. The user has all the same OBV capabilities such as sketching, Property Record Cards, worksheets, and valuation, because the Personal Property module is a shared module with Real Property.

Summary View of Values

There is a summary view of values and taxes. Category and class (also known as sum line number) summarize values. A total value is displayed at the bottom of the screen, broken out by original, adjusted, and net for appraised, pollution control, filing penalty, omitted penalty, exempt, and assessed values and taxes. User-defined labels customize the terminology of each site.

Penalty Calculations

The subsystem has the ability to assess late filing penalty, non-filing penalty, and/or omitted penalty on applicable assets/accounts. The user can view the calculated penalty view on a detailed line basis. The user can calculate late filing, non-filing, and/or omitted penalty on-demand. (This module can automatically calculate these penalties upon committing the transaction, if desired, to eliminate the need to perform this on-demand function.) A batch program is also provided to calculate penalties.

Calculated Values

Values are calculated on a per line item basis. The Personal Property Value Maintenance screen uses the table rates previously established upon installation to calculate the appraised value. The user is given the option to use the calculated value or to override the value. If the user does not override the value, then the calculated value becomes the final appraised value for the line item. The system uses an unlimited amount of depreciation tables to finalize the RCNLD. IAS supports quality factors and asset types in determining what depreciation table to utilize.

File Year

Personal Property filings will be entered per file year. Taxes can automatically be calculated upon committing the transaction or pressing the calculation button. Tax rates used are based on the tax district on the account and file year entered.

The file year will indicate whether this is a current filing (where the effective tax year equals the file for year) or is a back / prior years assessment filing. Current filings are identified as tax returns filed in the current assessment year for the current year. Back/prior assessments are identified as tax returns filed in the current year for a prior year(s). The Personal Property Value Maintenance screen will use the appropriate valuation and tax rate tables for the effective file year entered.

Interface with Assessment Administration Module

The Personal Property Value Maintenance screen uses the alternate identification and alternate name standard modules. Alternate name and alternate ID options exist on the drop-down menu available for entry/query at any time in all screens in Personal Property. This approach can be referred to as a *browse concept*. These options would typically be entered in the Personal Property Account Maintenance screen and utilized in the Personal Property Value Maintenance screen to query an account by either or both of these browse fields. Alternate IDs can be established on any number that is determined relevant to be queried on at a later time. Alternate names are owner names DBA, AKA, FKA, etc., and can be queried by selecting the appropriate button and entering the name to be queried.

A copy function is provided within the AA module to copy personal property detail line items for a prior tax year into the current tax year. This feature exists in the copy maintenance module. Once records have been copied or inserted into the Personal Property Value Maintenance screen, the user can assess the records as any other personal property assessment for the current tax year using the Personal Property Value Maintenance screen.

Vehicle Maintenance

The user can perform the valuation of automobiles or motorcycles and validation between mileage with respect to the zone, and/or location upon entry based on the database information.

Personal Property Data Management

The Personal Property module provides a complete database of detail asset characteristics and owner information. Here is a **partial** list:

Detailed Information

- Asset ID
- Description
- Type
- Category
- Note Code
- Year Acquired
- Number of Units
- Calculation Method
- Schedule
- Trend Factor
- Taxpayer Value
- Original Cost Value
- Assessed Value
- RCN Value

Owner Information

- Neighborhood
- Tax District
- Owner Name
- DBA Name
- Property Location
- City/State/Zip
- Total Number of Owners
- Owner Type Code
- Owner Link
- Agent Code
- Martial Status

Account Information

- NAIC
- SIC Code
- Use Code
- Business Type
- Description Type
- File Extension Date
- File Extension Number
- File Date
- File Code
- Lien Code
- Lien Number

Personal Property Reports

Alpha List – This report is generated in owner sequence displaying Account ID associated with the name and tax district.

Select Parcel List – This report can be generated for a selected parcel listing of account information for general purposes selected by parcel number, neighborhood, or zone.

Non-Filer Report – This report contains a list of non-filers by fieldref and account type.

Field Location Index - This report generates a field location report selected by parcel number, neighborhood, or zone.

Business Worksheet - This report generates a personal property worksheet for regular business accounts containing ownership information and valuation detail by selected parcel numbers, neighborhoods, or zones.

Leased Equipment Worksheet – This report is a personal property worksheet for lease accounts containing ownership information and valuation detail by selected parcel numbers, neighborhoods, or zones.

Batch Cost Report – This report provides the user with a list of accounts comparing their current and previous year assess values.

Value Change Report – This report identifies the updated value changes for a selected period of time.

Certificate of Corrections – This report prints a State-approved certificate of correction form utilizing the on-demand function. The user also has the ability to generate and pass a correction and note to a previous year record through a screen.

Omit Letter – The system will generate an Omitted Letter if the filer has personal property assets that are omitted.

Mailing Labels – The system will generate mailing labels for the requested classification of parcel type.

Personal Property Tax Return – The system generates a report that is customized by the installation site and conforms to State guidelines.

End of Year "Rollover" – This report rolls over personal property accounts. This report will also roll over tables from modules that are interfaced with the personal property module, such as: Owner, Alternate and Multiple Owners, Legal, Mailing Address, and Assessment.

Personal Property Batch Cost - This report gives the user the ability to batch cost all assets or selected assets based on parcel number ranges, account type, fieldref code, neighborhoods, or zones.

Non-Filer Update – This report is a batch update that calculates non-filer filer accounts.

Penalty Update – This report gives the user the ability to calculate penalties for accounts based on a parcel number range, account type, and/or penalty type. It also gives the option to re-calculate accounts that already had a penalty applied.

Cost Schedule Rollover – This report creates appraisal records to be used in calculating values.

Batch Deactivation – This report gives the user access to deactivate or reactive accounts in the personal property sub-module selected assets based on parcel number and account range by rollype.

Taxpayer Correspondence Management (iRespond)

The Taxpayer Correspondence Management Functionality provides a messaging framework to manage customer correspondence and workflow task assignments. Configuration flexibility allows for the management of general email correspondence and/or support specific business process with event driven notification and task queuing.

Incoming Mail

Filter by: ☒ All ☐ Pending ☐ Assigned ☐ Replied ☐ Rejected

ID	From	Subject	Division	Unit	Assigned	Received	Status	Locked
170	John Miller	Possessory Interest - IAS				11/02/2003	Replied	
171	Richard Stevens	Question or comment regar	Real Property	Residential		11/02/2003	Replied	
172	Bob Stokes	Exemption - IAS World	Real Property	Residential	richard	11/02/2003	Rejected	
173	Ann Whittle	Question or comment regar	Real Property	Residential	richard	11/02/2003	Assigned	
174	John Smith	Question or comment regar				11/02/2003	Replied	
175	cp	Exemption - IAS World	Real Property	Residential	richard	12/02/2003	Assigned	

Cancel Printed

Managers can review incoming correspondence and assign items to resources or business units for research and reply. Correspondence is consolidated in a single view that is filtered to present items by action status (pending, assigned, replied, rejected). Implicit record locking ensures that two or more people cannot work on the same item at once.

Included in this functionality are reply templates that allow common inquiries to be answered quickly and consistently. Organizations can author sanctioned responses to common queries that are made available to staff when composing replies. After selecting from a menu of sanctioned responses the email content is automatically drafted. This content can then be sent as is or edited to tailor to the specifics of the inquiry. Mechanisms to log, respond to, and report on events regarding property assessment accounts are also included with this set of functionality. These events, or incidents, can be initiated over-the-counter, by phone, or via the website by property owners, other government agencies, or assessment department processes.

iasWorld

MY ACCOUNT | SIGN OUT | HELP | CONTACT US

iasWorld

Cole Layer Trumble Company

Home

Property Records

Maintain

Focus

Analyze

Respond

Admin

Assign/Respond To Email

To: Forsythe@ascoma.ca

From: staylor@iasworld.com

CC:

Subject: Exemption

Dear Mr Jeffrey Forsythe,

Thank you for taking the time to share your comments. It may be helpful to know how sales information is posted on the web site.

The sales information listed on the web site comes directly from the county's Assessment Office records. If your sale is listed, it is because it is recorded in the Assessment Office, not because you provided information in a data verification mail.

Some sales are not included in the sales file because of special conditions: tax claim sales, sheriff sales between family member or for no consideration.

Response Template

ID▲	Description
1	Privacy Concerns
2	Proposition 13
3	Correction Request
4	Cannot Find Record
5	Site Usability
6	Sales Data Inquiry
7	Tax Bill
8	Positive Feedback

<<Back

Taxpayer Correspondence Management delivers exceptional productivity gains and increased customer service by integrating data, processes and messaging in a single, easy to use, web based framework

October 2005

Tyler | CLT Division

36

Assessment Administration

Purpose

The Assessment Administration module is the only required module for an iasWorld installation. The purpose of this module is to allow the user to maintain owner, legal and transfer information. This information can be maintained through transfer processing, split processing, and combination processing. AA also contains summary valuation information from CAMA and Personal Property. The information from the Assessment Administration system is carried into the Tax Extension module and used for tax calculation and roll certification.

Assessment Administration General Description

The Administration Assessment module of the Property Tax Engine provides the following features to perform clerical tasks quicker and more accurately.

Inquiry Indexes

Inquiry Indexes references the desired information when the Parcel ID is not known. Some examples include: owner name, property address, appraisal ID, and relationship between Real and Personal Property Accounts.

Standardized Names and Addresses

Allows the user to establish a single name and address to be referenced for each owner, use value, homestead, and mailing name. This approach reduces the amount of data stored and standardizes owner information.

Zip Code Table

This feature allows the data entry operator to enter a five or nine digit zip code. The system will re-display the correct city and state from the standard zip code table.

Multi-Year Assessment and Collection Data Maintenance

Allows data to be entered at the time the activity occurs, regardless of the stage in the particular assessment cycle. Unlimited years of data can be stored in the Assessment history screen.

LANDISC Interface

This option can provide a real-time, on-line interface with the digital image (picture) of the property tied to the detailed property characteristics.

On-Line Audit Trail

The system can keep a historical reference of all changes by user ID and maintenance date on selected screens. The on-line audit provides an easy visual check of the changes made to the property.

Unlimited Ownership Name and Address

The Assessment Administration module has the ability to store a complete detail history of ownership names, addresses, and sales history for an unlimited number of years. The only requirement is the amount of physical disk space that the system has available. The ownership screen displays owner name, percentage of ownership, exemption status, and social security number per owner.

Status Review Screen

The Assessment Administration module has the ability to display the most current status of a parcel at any given time.

Unlimited Property Addresses

The system stores unlimited property location for both real and personal properties. The user can logically link the situs address to each line of data in the database from any iasWorld screen.

Assessment Administration Data Management

The major components of the system can be divided into the following segments.

Real Estate Split Tracking

Real Estate Split Tracking provides for a streamlined method for dividing real estate property. Here is how it works:

The original parcel number is entered into the split tracking system with the split number, tax year and all new parcel IDs created as a result of the split. New data for the legal description and name/address can also be entered at the same time. Parcel value has a proration option available for valuation and special assessments.

The system will balance the acres to verify that total new acreage equals old acreage.

Real Estate Combination Tracking

The Combination Tracking feature allows for an efficient method of combining multiple properties.

The combined parcel number, new legal description, combination number, acres, and old parcels are entered into the combination tracking system. The system will deactivate the old parcel numbers, providing an efficient means of tracking combined parcels.

Real Estate Transfer Tracking

The Real Estate Transfer Tracking feature provides a history of all transfers on-line with ownership, sales data, and note sections available.

Exemption Processing

The AA module can maintain the exemption status of a property.

Unlimited Legal Description

The AA Module can store and print the entire unlimited legal description and pass this data to other Property Tax Engine Modules. Users have the ability to highlight, cut, paste, search, and replace legal descriptions. Additional fields that are available include subdivision name, plat book and page, block, unit, phase, etc. Users can define as many fields as necessary to meet their needs.

Annual Rollover

Annual Rollover in iasWorld can be implemented per module. Site-specific business rules can be applied to meet any special requirements. For example, some Jurisdictions determined that they would like to rollover deactivated records; other sites do not want this feature.

The Assessment Administration module provides for the valuation of land enrolled in preferential assessment programs. Land valuation is based on Use (pasture, tillable, etc.) and Soil (actual soil or soil class). User-definable rate tables are then set up for each Use/Soil entry as appropriate. Different yield rates then can be applied based on year planted. iasWorld's Property Tax Engine allows for land line assignment of acreage by soil type. Override adjustments can be made at the line level. The system also provides for the recoupment of taxes if land is taken out of the preferential treatment program.

Assessment Administration Reports

Valuation Totals - The Valuation Totals report contains District and County totals for land, building, acreage and parcel count by classification.

Abstract of Real Property - The system provides detailed information for preparing the Abstract of Real Property. District and grand totals are a summary of the value changes by reason code or by state specific code.

Abstract of Values of Land Taxed According to Specified Use Value - The system provides detail agricultural use information to generate the values needed for this report.

Abstract of Exempted Real Property - The system provides the values to produce an abstract of exempted property.

Classification List - The system will generate a report based on property classification. Example: Exempt, Gas, Oil, Public Utility, etc. The list contains Parcel ID, Owner Name and Address, Legal Description, Acres, Range-tract-section, Appraised, and Assessed Values.

Alpha Cross-Reference List - This report is generated in owner sequence displaying the Parcel ID associated with the name.

Mailing List - This report is generated in mailing name sequence displaying Parcel ID, Mailing Name, Mailing Address, and Loan (Mortgage Lender) Number.

Alpha Legal Cross-Reference - This report is generated in owner sequence displaying Owner Name, Parcel ID, Legal Description, and Acreage.

Detail Mailing List - This detail report prints in mailing sequence and displays Parcel ID, Owner Name, Mailing Name/Address, Legal Description, Loan Number, and Date of Mailing Change.

Transfer List - The system generates a report of all transfers. It contains Old Owner, New Owner, Legal Description, Appraised Values, Class, Acres, Transfer Number, and Parcel ID.

Land Use Code Listing - This report contains Parcel ID, Owner Name, Classification, and Land Use Code.

Neighborhood Code Listing - This report cross references Appraisal ID, Parcel ID, and Neighborhood Code.

Partial Value Listing - The system generates a report of new construction parcels that are only partially completed. It contains Parcel ID and Appraisal ID.

Appraisal Identification Listing - This report is generated in Parcel ID order containing Parcel ID, Appraisal ID, and Owner Name.

Owner Code Listing - This report prints the Owner code and the associated name and address. It may be printed in Name or Owner Code sequence.

Zip Code Listing - This report identifies all zip codes used in the county and is used to maintain consistent zip codes county-wide. The owner/mailing addresses use the zip code field to display the City/State. This eliminates the need to encode City/State manually on every parcel.

Homestead Listing - This report reflects all parcels that currently have a homestead exemption reduction.

Valuation Post Cards - The system will generate a Revaluation Notice Post Card. Cards may be printed for all reappraisal changes, new construction changes, or all value changes.

Labels - A generic label program is available that will print mailing labels for the requested classification or range of parcels.

Parcel Value List – This program accepts a range of parcels and generates a report containing Parcel ID, Class, and Appraised Values.

Denial Notices – The standard Department of Revenue denial notice is provided in a batch mode. User has the ability to store the detail reasons for the denial in the Exemption database.

Homestead, Total Exemption and Ag Receipt Cards – ASCII flat file is produced that can be used for large volume printing of these state mandated forms. Some sites prefer to print these forms on large volume Mainframe printers. Files can be adapted to meet local requirements.

Homestead Field Review Documents – Exemption field review documents are available for all Homestead Parcels. End User can flag parcel as a problem account and field-tracking document will be generated.

Homestead Letters – The Assessment Administration module provides a wide variety of letters available for tracking exemptions, deleting of exemptions, and return mail, to just mention a few options.

NOTE: All Personal Property reports run from the Personal Property Module.

Web Services Framework (iEnable)

This is the core enterprise services framework that provides the common services required and shared by all iasWorld applications. The framework is based on modern XML, UDDI and SOAP industry standards. iEnable has been designed to easily scale from a single server implementation to highly distributed configurations. Smaller jurisdictions can implement cost effective, easily maintained sites using a single server. Larger jurisdictions, or those with high volume service, can be deployed over two, three or more servers.

Key features include:

Open XML Standards based Architecture

- Optimized XML transactions with IAS

- Secure Log-on Services

Role Management

- Role Definition & Assignment

- User Account Management

- User Group Definition

- Subscription Service Support

Site Management

- Page Content/Proofing

- Page Upload

- PDF Upload

- Template Configuration

- Multilingual Support

- In-line Editing of Web Pages

List Management

Save Queries
Save Search Results
Import Lists
Export Lists
Manage Lists
Share Lists
Protect Lists

The application flexibility allows source GIS events to spawn work queues for iasWorld transaction commits ensuring that updates are validated against all business rules at the database level. In turn, source Property Tax Engine transactions can spawn work queues for GIS transactions and, where possible, apply automated updates to GIS attribute data. Furthermore, forms can be customized to integrate Property Tax Engine updates with GIS updates for platforms supporting interoperability such as GeoMedia and ArcGIS.

Web-based User Interface (iMaintain)

The web-based user interface is a collection of master work transaction (super transactions) templates and related web forms that provide users with a web based user interface (UI) to the IAS database engine. These web forms and related work transactions are designed to streamline common work processing by allowing end users to consolidate information from many different sources (multiple tables/records/fields within iasWorld, external GIS, property photos, etc) into one transaction UI based on web interface standards.

A Set of Master transaction templates for common processes such as:

- owner transfer process
- sales transaction process
- exemption process
- parcel maintenance process,
- customer inquiry process

- Residential				
	Date	Amount	Trans#	Status
1	01-Feb-1988	87000	000290	
2	04-Oct-2000		E2003	
3	19-Dec-1995	115500	4268	
4	26-Jul-2001	132500	2901	

[Add New](#)
[Remove](#)
[Update](#)
[Submit](#)

Sales Information

Seller: Sales Date: Sales Price:

New Owner Name: Owner Code:

Address: City: State: Zip:

Instr Type: Transfer #: Sales Type: Owner Letter:

Source: Validity: Questionnaire:

Figure 8 – An example of a user customizable form used in capturing new sale information.

Public Access (iCare)

The Public Access application functionality provides assessment and tax agencies with an advanced web application to exchange data with the general public and commercial interests over the Internet and/or a public service kiosk. This application can also be accessed via virtual private networks (VPN) to provide secure access to data and to interface other agency business processes. The following features are included:

Data Access

- Static HTML Content
- Dynamic RDBMS (real property, personal)
- Sketch Rendering
- Integrated, Dynamic Mapping
- Property Photo Images
- Reports (PRC, Sales, Comparables, Mail Lists)
- User managed Site configuration

Search Criteria

- Property ID
- Property Address

- Owner Name
- User-defined Criteria (build your own queries)
- Sales Range Comparables
- User defined Lists based on selections
- Interactive Map Navigation and Selections

Sales Search Criteria

☒ Street: Suffix: Dir: Region:
☐ Nbhd.:
 Sale Amount: To Sale Date:
 Square Feet: To Bldg. Style:
 # of Stories: To Year Built: To

Current List: [12]
Working List:

SELECTION MANAGER

LIST MANAGER

Reports:

Search for SalesCriteria: woodville Results 1-12 of 12

Parcel ID	Address	Sale Date	Sale Amount
<input type="checkbox"/> 112207A270.	2210 WOODVILLE ...	15-NOV-99	103500
<input type="checkbox"/> 112207A271.	2120 WOODVILLE ...	08-MAY-00	100000
<input type="checkbox"/> 112207A276.	2124 WOODVILLE ...	24-SEP-01	117000
<input checked="" type="checkbox"/> 112207A285.	2210 WOODVILLE ...	20-JUL-01	120000
<input type="checkbox"/> 112207D120.	1842 WOODVILLE ...	06-APR-01	135000
<input type="checkbox"/> 112208E112.	1784 WOODVILLE ...	26-SEP-01	107000
<input checked="" type="checkbox"/> 112209C176.	1401 WOODVILLE ...	04-APR-00	122700
<input type="checkbox"/> 112209C190.	1429 WOODVILLE ...	17-NOV-00	120000
<input type="checkbox"/> 112211C154.	2390 WOODVILLE ...	25-APR-01	127900
<input checked="" type="checkbox"/> 114332.008.	1472 WOODVILLE ...	01-AUG-01	105000
<input type="checkbox"/> 182403G085.	1354 WOODVILLE ...	29-DEC-99	107500
<input type="checkbox"/> 182403H440.	1300 WOODVILLE ...	21-AUG-00	111000

Results Page: [1]

Figure 9 – Public access users and/or subscribers can be offered sophisticated data retrieval tools over the Internet.

Electronic Document Management Integration (iDoc)

Enabling Electronic Document Management System (EDMS) integration with iasWorld, this functionality provides a generic interface to third party EDMS systems such as Microsoft SharePoint Portal server. It also allows documents to be saved to and retrieved from the EDMS using the parcel ID as the key. For customers who do not wish to use a third-party EDMS implementation, iasWorld provides an optional extension to support storing of documents into the same database storage used by iasWorld's Property Tax Engine. In this case, available documents for a particular parcel ID are listed on a property data page as part of the parcel details web page display.

Tax Billing & Collection Module

Purpose

The core purpose of the Tax Billing and Collection Module is to extend, collect, and distribute property taxes and all related charges. In this module, property taxes and secondary charges are extended (calculated) based on rates maintained in the system and property valuation maintained in the Assessment Administration Module. This calculation can occur by means of a batch process or through on-line processing. After extension, the calculated tax amounts are available for collection.

The Tax Billing & Collection Module accepts a number of different means by which payments may be posted. Payments can be directly posted to parcels through the use of on-line payment processing screens, or payments can be accepted through third party cashier applications. Additionally, the Tax Billing & Collection module accepts payments from a number of mass payment processes such as Lock Box payments and Mortgage Company payments.

Once payments have been accepted, the Property Tax Engine allows for the organization and distribution of the payment funds received and allocates these funds to the taxing authorities. This process is referred to as Tax Settlement and Disbursement processing, in iasWorld.

Tax Billing and Collection General Description

Tax Rates

The organization and maintenance of tax rates are a key component of the tax extension process. The Tax Billing & Collection module allows the user to maintain a variety of rate structures. Rate structures such as single jurisdiction, multiple jurisdictions, and multiple value class rates may all be processed in the tax rate arrangement of this module.

Tax Extension

The term *Tax Extension* in the Tax Billing & Collection module refers the calculation of original taxes and related charges for a given collection period. This module provides for an automated calculation and posting process of both fixed-and percentage-based charges. Automated posting may take place at user-defined intervals, such as at time of payment posting, at time of original charge calculation, and on a fixed monthly basis. The tax and fee definitions define the various types of fees, penalties, discounts, and interest used in the automated posting.

Production of Tax Bills

The production of tax bills is a direct result of the Tax Extension process in the Tax Billing and Collection module. Tax bills can be generated in real time for printing on an as-needed basis or processed in batch mode for mass distribution to tax payers. Generally, individual tax bills are unique to each installed site and must adhere to legislated standards. As a result, routines that generate these custom on-line and off-line bills are created and maintained for the production of tax bills.

Tax Adjustments

Performing adjustments to tax charges due to value changes, fee adjustments, rate changes, and other requirements that impact tax charges is a primary role of the Tax Billing and Collection module. The module provides the means by which a variety of these adjustments may be performed both automatically and manually in the system. The tax adjustment process allows for the reversal and redistribution of tax payments based on adjustments.

Payment Processing

Payment processing in the Tax Billing and Collection module provides for a cash receipting system that facilitates the posting of payments to outstanding tax charges. This system provides a number of reports that allow for the daily balancing of collections with posted amounts, in addition to refunds and pretax payments.

Additional solutions to collecting taxes are also provided in payment processing:

- **Cashier Interface** – The system provides an interface that may be utilized with various front-end cash receipting systems. This allows for a single cashier system from which all over the counter cash receipting can be accomplished (i.e., tax collection, licenses, parking fees, etc).
- **Mortgage Tape Payments** – Payments initialized and received through mortgage company agencies are processed through the batch payment processing function of the Tax Billing & Collection module. Tax bills may be generated through electronic media and sent to the specific mortgage companies or to a specified tax service agency. Mortgage company and tax service agency payments can also be received and processed through batch payment processing.
- **Lock Box Payments** – Payment processing provides the option to process electronically transmitted payments received through the lock box of a bank.
- **Other Batch Payments Processes** – The payment processing function of the Tax Billing and Collection module allows for payment processing through additional batch means such as Authorized Charges (ACH) processing.

Refund Processing

The payment processing functions of the Tax Billing and Collection module allow for the collection and issuance of refunds in overpayment situations. Refunds are automatically generated and maintained as overpayments are processed.

Pretax Processing

Pretax processing is an additional feature of payment processing in the Tax Billing and Collection module. Pretax processing allows for the collection of funds for later application to future outstanding tax charges. The funds are placed in a holding area in the module where they remain until future taxes are extended and available for payment.

Special Assessments

The Tax Billing and Collection module provides a subsystem for the establishment and maintenance of multi-year property-based special assessments. These special assessments are integrated with all functional areas of the module and can be applied to any property with which taxes are to be calculated. The special assessment subsystem can accommodate multiple types of special assessment calculations such as:

- Calculated using millage rates applied to assessed values.
- Manually entered by the user for a billing cycle.
- Amortized over a number of billing periods.
- Single Flat tax amounts applicable to all parcels.
- Fire district assessments based on a specified unit type such as per lot, per acre, and per square foot under roof.

Tax Settlement and Disbursements

The Tax Settlement and Disbursements function provides for the periodic reconciliation of funds collected and available for disbursement to the various taxing entities. This reconciliation takes into consideration tax credits that are to be reimbursed to the jurisdiction from other governmental agencies. Tax Settlement and Disbursement frequencies vary from one jurisdiction to another, i.e., daily, monthly, quarterly, etc.

The Disbursement/Settlement Scheduler allows for the definition of the frequency and level of settlement required and needed in disbursement reports. The Tax Billing & Collection module uses Disbursement/Settlement Modifiers to allow the user to define percentage reallocations of monies appropriated for disbursement.

Settlement extract procedures extract Tax Settlement Detail records from the database and summarize this information based upon the parameters outlined in the Disbursement/Settlement Scheduler table and Disbursement/Settlement Modifier table specifications. The summarized information is then stored in the database for subsequent inquiry purposes.

The system also permits interfacing with various financial packages allowing for distribution information to be processed through the General Ledger or Accounts Receivable and Payable when necessary.

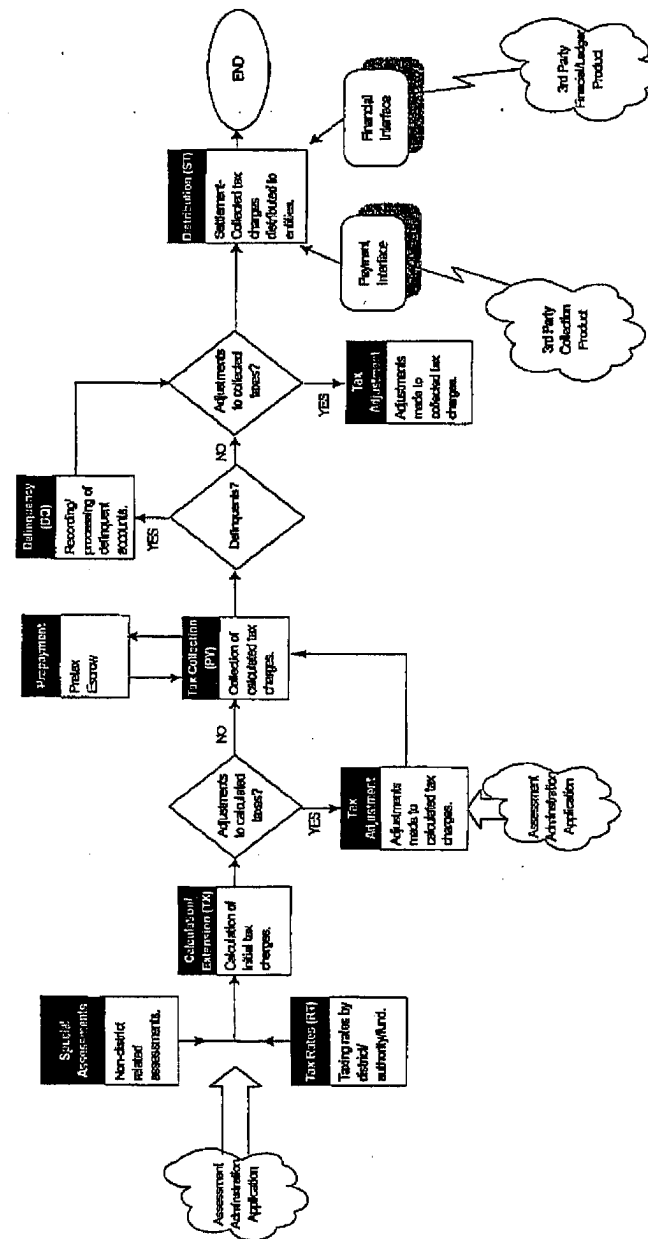


Figure 10: Tax Billing and Collection Data Flow

Tax Billing and Collection Related Reports

Project Table List - This report prints all projects and contains Project Name, Calculation Code, Factor, Mills, County Fee, Assessment Type, Years Beginning and Ending, Delete Flag, Ditch Amount, Interest, Bond Date, Months and Ordinance Number.

Special Assessment Listing - This report is generated by parcel number within project and contains all charges for the selected tax year.

Amortization Total List - This report may be generated by Project or Parcel ID and contains Project Number, Charge, Interest, Interest Remaining, Principal, Remaining Principal and Pay Off.

Special Assessment Tax Abstract - A Tax Abstract of all special assessment charges with the Jurisdiction's fees applied in a project listing.

Special Assessment Data Transfer - The Tax Administration module provides the capability to interface with tape or floppy disk data from taxing Jurisdictions.

Electronic Payment (iPay) *Not included with this agreement.

A generic web based payment processing engine is integrated into specific iasWorld applications that require payment processing. For example, Public Access incorporates this module for real estate property tax payments. This integrates leading 3rd party VISA and eCheck processing vendors, including secure real-time funds transfer and on-demand reconciliation reporting. It also provides real-time transaction tracking ID's for users to verify that their payments were received and authorized.

Electronic Payments (iPay)

- ACH / eCheck
- Credit Card
- Subscriptions Service

Inquiry & Appeals Tracking

Purpose

The Inquiry & Appeals Tracking Module is used to manage the appeals process from informal filings through formal or judicial appeals. This includes scheduling hearings, assigning hearing officers, preparing supporting documentation for each hearing and sending results letters to the taxpayer.

Inquiry & Appeals Tracking General Description

Scheduling Hearings

The user can define any type of hearing appropriate to the Jurisdiction. The user specifies the order of the hearings, time limits for filing, appointment duration, and time allowed for resolution.

This module allows for the scheduling of any type of hearing via telephone, at the counter or by written request. It matches the requests for hearings with the availability of hearing boards.

In the instance where multiple parcels are involved, a case number can be assigned to treat the group of parcels as one entity.

Hearing Boards

Any number of "Hearing Boards" can be designated. Their makeup can be designed by name or position. Their availability, including breaks, can be factored into the scheduling process.

Taxpayers

Taxpayers can represent themselves at the hearing or can be represented by Tax Representatives. Taxpayer information is drawn from the Property Tax Engine database. Additionally, Tax Representative information can be stored, including agent name, firm name and address, as well as their contact information.

Integration with Appraisal Data

As appointments are conducted, the Hearing Boards have access to all supporting documentation regarding the case in question. This provides a "when needed" level of information support to the hearing process.

Once decisions are made, value and data changes can be posted back to the CAMA and Assessment Administration modules.

Inquiry & Appeals Tracking Data Management

A partial list of data managed by this module includes:

- Hearing type
- Date filed
- Appointment type
- Appointment date and time
- Taxpayer opinion of value
- Decision date and reason
- Names and titles of Board Members